

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

**PROPOSED
HIGHWAY PLANS**

F.A.P. ROUTE 823 (IL. RTE. 15)
SECTION D7 BRIDGE REPAIRS 2014-3

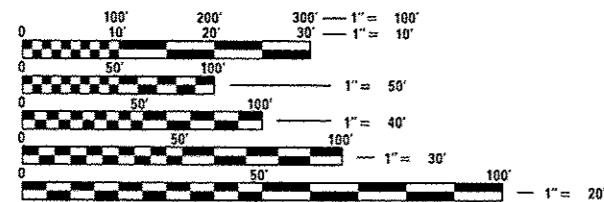
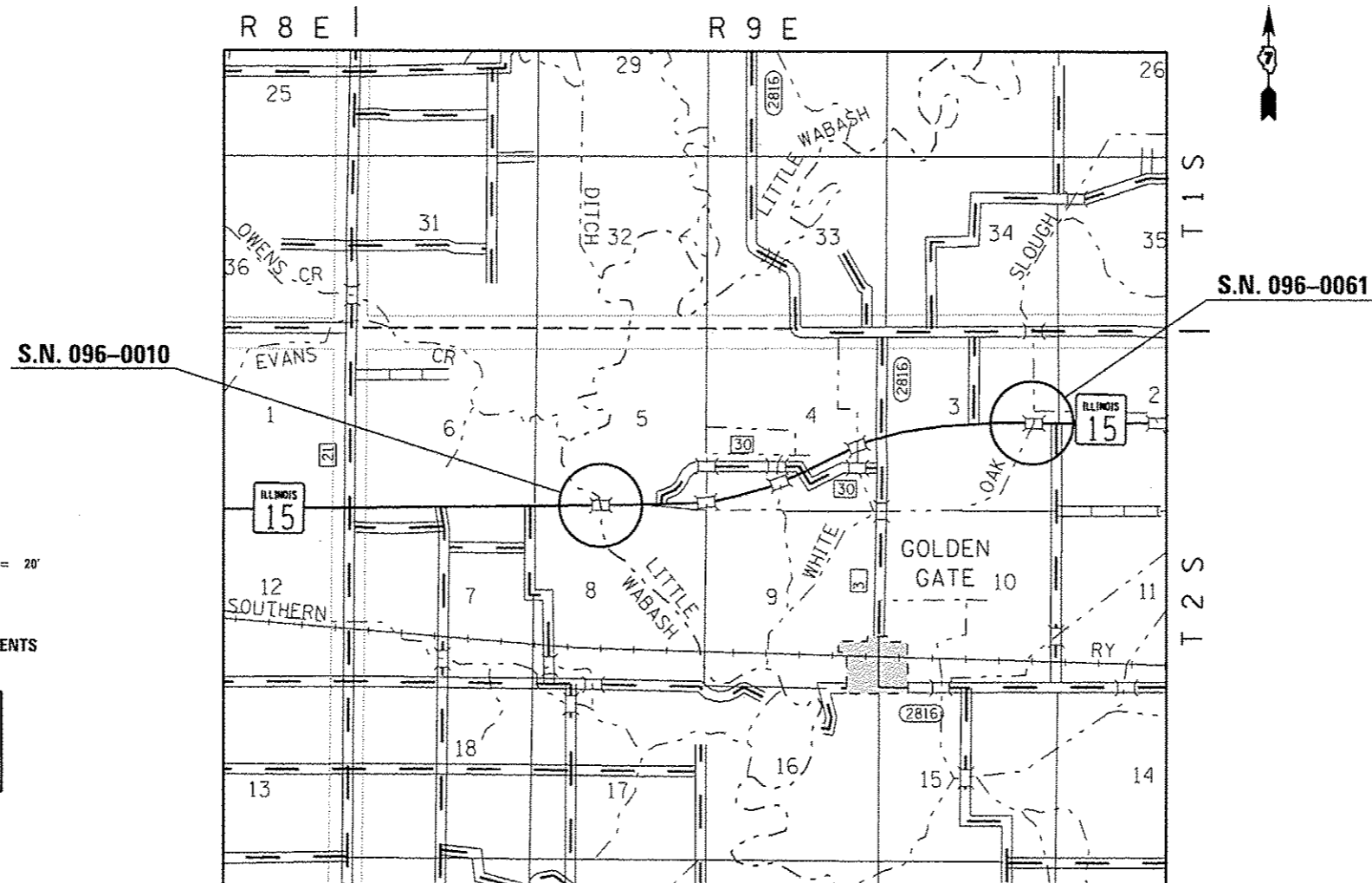
**BRIDGE JOINT REPAIR
WAYNE COUNTY**

C-97-062-13

FOR INDEX OF SHEETS, SEE SHEET NO. 2

ADT = 2,600 (2011)

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
823	D7 BRIDGE REPAIRS 2014-3	WAYNE	60	1
ILLINOIS			CONTRACT NO. 74618	



FULL SIZE PLANS HAVE BEEN PREPARED USING STANDARD ENGINEERING SCALES. REDUCED SIZED PLANS WILL NOT CONFORM TO STANDARD SCALES. IN MAKING MEASUREMENTS ON REDUCED PLANS, THE ABOVE SCALES MAY BE USED.

J.U.L.I.E.
JOINT UTILITY LOCATION INFORMATION FOR EXCAVATION
1-800-892-0123
OR 811

PROJECT ENGINEER: TOM RONAN
PROJECT MANAGER: ROSS BIERMAN
PHONE: (217)-342-8320
CONTRACT NO. 74618

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

SUBMITTED Dec 05 20 13

Roger L. Dishell
DEPUTY DIRECTOR OF HIGHWAYS, REGION ENGINEER

Jan 24 20 14
John D. Baranzelli
ENGINEER OF DESIGN AND ENVIRONMENT

Jan 24 20 14
Omer Osman P.E.
DIRECTOR OF HIGHWAYS, CHIEF ENGINEER

**PRINTED BY THE AUTHORITY
OF THE STATE OF ILLINOIS**

INDEX OF SHEETS

SHEET NO.	ITEM
1	COVER SHEET
2	INDEX OF SHEETS AND GENERAL NOTES
3-4	SUMMARY OF QUANTITIES
5	SCHEDULE OF QUANTITIES
6-21	STAGE TRAFFIC CONTROL
22-56	BRIDGE DETAILS
57-60	PAVEMENT MARKING DETAILS

THE FOLLOWING STANDARDS ARE A PART OF THESE PLANS AND ARE INCLUDED AFTER SHEET NO. 60:

STD. NO.	DESCRIPTION
000001-06	STANDARD SYMBOLS, ABBREVIATIONS AND PATTERNS
001001-02	AREAS OF REINFORCEMENT BARS
001006	DECIMAL OF AN INCH AND OF A FOOT
420701-02	PAVEMENT FABRIC
701001-02	OFF-ROAD OPERATIONS, 2L2W, 15' MINIMUM AWAY FROM PAVEMENT EDGE
701006-05	OFF-ROAD OPERATIONS, 2L2W, 15' AWAY TO EDGE OF PAVEMENT
701201-04	LANE CLOSURE, 2L2W, DAY ONLY
701301-04	LANE CLOSURE, 2L2W, SHORT TIME OPERATIONS
701321-13	LANE CLOSURE, 2L2W, BRIDGE REPAIR WITH BARRIER
701326-04	LANE CLOSURE, 2L2W, PAVEMENT WIDENING
701901-03	TRAFFIC CONTROL DEVICES
704001-07	TEMPORARY CONCRETE BARRIER
780001-04	TYPICAL PAVEMENT MARKINGS

GENERAL NOTES

THIS SECTION SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE PLANS; THE "STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION" ADOPTED JANUARY 1, 2012; AND THE SPECIAL PROVISIONS INCLUDED IN THE PROPOSAL.

THIS PROJECT IS LOCATED ON FAP 823 (ILLINOIS ROUTE 15) AT STRUCTURE NUMBERS 096-0010 AND 096-0061. STRUCTURE NUMBER 096-0010 IS LOCATED 4.5 MILES WEST OF THE EDWARDS COUNTY LINE IN WAYNE COUNTY AND STRUCTURE NUMBER 096-0061 IS LOCATED 2 MILES WEST OF THE EDWARDS COUNTY LINE IN WAYNE COUNTY. THE WORK INCLUDED IN SECTION 07 BRIDGE REPAIRS 2014-3 CONSISTS OF BASE COURSE WIDENING, TRAFFIC CONTROL, BRIDGE EXPANSION JOINT REPAIRS, NEW BEARING ASSEMBLIES, PAVEMENT MARKING, AND ANY OTHER WORK NECESSARY TO COMPLETE THE SECTION.

PLAN DIMENSIONS AND DETAILS RELATIVE TO THE EXISTING STRUCTURES HAVE BEEN TAKEN FROM EXISTING PLANS AND ARE SUBJECT TO NOMINAL CONSTRUCTION VARIATIONS. IT SHALL BE THE CONTRACTORS RESPONSIBILITY TO VERIFY DIMENSIONS AND DETAILS IN THE FIELD AND MAKE NECESSARY APPROVED ADJUSTMENTS PRIOR TO CONSTRUCTION OR ORDERING OF MATERIAL. SUCH VARIATIONS SHALL NOT BE CAUSE FOR ADDITIONAL COMPENSATION FOR A CHANGE IN THE SCOPE OF THE WORK. THE CONTRACTOR WILL BE PAID FOR THE QUANTITY FURNISHED AT THE UNIT PRICE BID FOR THE WORK.

THE SAW CUT REQUIRED FOR THE PAVED SHOULDER REMOVAL SHALL BE INCLUDED IN THE COST OF PAVED SHOULDER REMOVAL AND NO ADDITIONAL COMPENSATION WILL BE ALLOWED. ANY EXCAVATION NECESSARY FOR CONSTRUCTION OF THE PCC BASE COURSE WIDENING, 10" SHALL BE INCLUDED IN THE COST OF THE PCC BASE COURSE WIDENING, 10" AND NO ADDITIONAL COMPENSATION WILL BE ALLOWED. THE PCC BASE COURSE WIDENING, 10" SHALL BE REINFORCED WITH PAVEMENT FABRIC. THE REINFORCEMENT WILL BE PAID FOR SEPARATELY AT THE CONTRACT UNIT PRICE PER SQUARE YARD FOR PAVEMENT FABRIC.

THE CONTRACTOR WILL NEED TO DETACH OR REMOVE GUARDRAIL TERMINAL SECTIONS TO COMPLETE CONCRETE REMOVAL AND TO CONSTRUCT THE NEW EXPANSION JOINTS. NO ADDITIONAL COMPENSATION WILL BE ALLOWED FOR DETACHING, REMOVING, AND REATTACHING ANY GUARDRAIL TO THE STRUCTURES. THIS WORK WILL BE CONSIDERED INCLUDED IN THE PAY ITEMS INVOLVED. THE CONTRACTOR MAY NEED TO REMOVE AND REINSTALL EXISTING NAME PLATES TO COMPLETE CONCRETE REMOVAL AND TO CONSTRUCT THE NEW EXPANSION JOINTS. NO ADDITIONAL COMPENSATION WILL BE ALLOWED FOR REMOVING AND REINSTALLING ANY NAME PLATES. THIS WORK WILL BE CONSIDERED INCLUDED IN THE PAY ITEMS INVOLVED.

REMOVAL OF TEMPORARY CONCRETE BARRIER FROM THE PROJECT SITE SHALL BE CONSIDERED INCLUDED IN THE PAY ITEM RELOCATE TEMPORARY CONCRETE BARRIER AND NO ADDITIONAL COMPENSATION WILL BE ALLOWED FOR REMOVING THE TEMPORARY CONCRETE BARRIER.

PAVEMENT MARKING SHALL BE APPLIED IN ACCORDANCE WITH SECTION 780 OF THE STANDARD SPECIFICATIONS.

THE TOTAL QUANTITY OF PAINT PAVEMENT MARKING-LINE 4" CONSISTS OF 5270 FEET OF WHITE AND 659 FEET OF YELLOW.

IN ADDITIONAL TO THE REQUIREMENTS FOR PORTABLE CHANGEABLE MESSAGE SIGNS IN ARTICLE 701.15(I), A LAPTOP COMPUTER TO CONTROL THE MESSAGE SIGNS SHALL ALSO BE SUPPLIED BY THE CONTRACTOR.

THE PAY ITEM TEMPORARY RAMP HAS BEEN INCLUDED FOR THE CONSTRUCTION OF TEMPORARY RAMPS IN ACCORDANCE WITH ARTICLE 406.08 OF THE STANDARD SPECIFICATIONS. THE COST PER SQUARE YARD SHALL INCLUDE BOTH THE INSTALLATION AND THE REMOVAL OF THE TEMPORARY RAMPS.

LENSES ON THE RAISED REFLECTIVE PAVEMENT MARKERS IN THE TAPER AREAS SHALL BE REMOVED, REMOVING, STORING, AND REINSTALLATION OF THE LENSES SHALL BE INCLUDED IN THE COST OF TRAFFIC CONTROL AND PROTECTION STANDARD 701321.

THE FOLLOWING MIXTURE REQUIREMENTS ARE APPLICABLE TO THIS PROJECT:

MIXTURE USE:	SURFACE COURSE (1 1/2")
APPLICATION:	HOT MIX ASPHALT SURFACE COURSE, MIX "C", N70
PG GRADE:	PG 64-22
DESIGN AIR VOIDS:	4.0% @ NDESIGN = 70
MIXTURE COMPOSITION:	IL-9.5
FRICTION AGGREGATE:	MIXTURE C

FILE NAME =	USER NAME = staffenh	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	INDEX OF SHEETS AND GENERAL NOTES	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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				100% STATE		
SUMMARY OF QUANTITIES			TOTAL QUANTITIES	CONSTRUCTION TYPE CODE		
CODE NO	ITEM	UNIT		S.N. 096-0010 0014	S.N. 096-0061 0014	
35400500	PORTLAND CEMENT CONCRETE BASE COURSE WIDENING 10"	SO YD	378	187	191	
40600990	TEMPORARY RAMP	SO YD	84	56	28	
40603315	HOT-MIX ASPHALT SURFACE COURSE, MIX "C", N70	TON	7	4.7	2.3	
42001200	PAVEMENT FABRIC	SO YD	378	187	191	
44000155	HOT-MIX ASPHALT SURFACE REMOVAL, 1 1/2"	SO YD	84	56	28	
50102400	CONCRETE REMOVAL	CU YD	52.6	36.1	16.5	
50300255	CONCRETE SUPERSTRUCTURE	CU YD	52.6	36.1	16.5	
50300300	PROTECTIVE COAT	SO YD	47	33	14	
50500405	FURNISHING AND ERECTING STRUCTURAL STEEL	POUND	12600	10090	2510	
50800205	REINFORCEMENT BARS, EPOXY COATED	POUND	7500	5190	2310	
50800515	BAR SPLICERS	EACH	162	112	50	
52000110	PREFORMED JOINT STRIP SEAL	FOOT	344	239	105	

				100% STATE		
SUMMARY OF QUANTITIES			TOTAL QUANTITIES	CONSTRUCTION TYPE CODE		
CODE NO	ITEM	UNIT		S.N. 096-0010 0014	S.N. 096-0061 0014	
52100010	ELASTOMERIC BEARING ASSEMBLY, TYPE I	EACH	60	50	10	
52100020	ELASTOMERIC BEARING ASSEMBLY, TYPE II	EACH	15	5	10	
52100520	ANCHOR BOLTS, 1"	EACH	140	100	40	
52100530	ANCHOR BOLTS, 1 1/4"	EACH	20	20		
67000400	ENGINEER'S FIELD OFFICE, TYPE A	CAL MO	8	4	4	
67100100	MOBILIZATION	L SUM	1	0.5	0.5	
70100405	TRAFFIC CONTROL AND PROTECTION, STANDARD 701321	EACH	2	1	1	
70100450	TRAFFIC CONTROL AND PROTECTION, STANDARD 701201	L SUM	1	0.5	0.5	
70100500	TRAFFIC CONTROL AND PROTECTION, STANDARD 701326	L SUM	1	0.5	0.5	
70103815	TRAFFIC CONTROL SURVEILLANCE	CAL DA	12	6	6	
70106500	TEMPORARY BRIDGE TRAFFIC SIGNALS	EACH	2	1	1	
70300100	SHORT TERM PAVEMENT MARKING	FOOT	264	184	80	

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	PLOT DATE = 12/6/2013	DATE -	REVISED -			CONTRACT NO. 74618 ILLINOIS FED. AID PROJECT					

100 % STATE

SUMMARY OF QUANTITIES

CODE NO	ITEM	UNIT	TOTAL QUANTITIES	CONSTRUCTION TYPE CODE	
				S.N. 096-0010 0014	S.N. 096-0061 0014
70300220	TEMPORARY PAVEMENT MARKING - LINE 4"	FOOT	5929	4129	1800
70301000	WORK ZONE PAVEMENT MARKING REMOVAL	SO FT	88	61	27
70400100	TEMPORARY CONCRETE BARRIER	FOOT	2237.5	1537.5	700
70400200	RELOCATE TEMPORARY CONCRETE BARRIER	FOOT	2237.5	1537.5	700
70600250	IMPACT ATTENUATORS, TEMPORARY (NON-REDIRECTIVE), TEST LEVEL 3	EACH	4	2	2
70600350	IMPACT ATTENUATORS, RELOCATE (NON-REDIRECTIVE), TEST LEVEL 3	EACH	4	2	2
* 78001110	PAINT PAVEMENT MARKING - LINE 4"	FOOT	5929	4129	1800
78300100	PAVEMENT MARKING REMOVAL	SO FT	1976	1376	600
X7015005	CHANGEABLE MESSAGE SIGN	CAL DA	28	14	14
Z0001899	JACK AND REMOVE EXISTING BEARINGS	EACH	80	60	20
Z0005010	HOT-MIX ASPHALT FOR PATCHING POTHOLES (COLD MIX)	TON	4	2	2

SUMMARY OF QUANTITIES

CODE NO	ITEM	UNIT	TOTAL QUANTITIES	CONSTRUCTION TYPE CODE	
				S.N. 096-0010 0014	S.N. 096-0061 0014

* SPECIALTY ITEM

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		CHECKED -	REVISED -
		DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SCHEDULE OF QUANTITIES

SCALE: N/A SHEET 2 OF 2 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
823	07 BRIDGE REPAIRS 2014-3	WAYNE	60	4
CONTRACT NO. 74618				
ILLINOIS FED. AID PROJECT				

WIDENING SCHEDULE

STATION TO STATION	LOCATION	PORTLAND CEMENT CONCRETE BASE COURSE WIDENING, 10'	PAVEMENT FABRIC
	CORNER	SO YD	SO YD
S. N. 096-0010			
	NE	46.7	46.7
	NW	46.7	46.7
	SE	46.7	46.7
	SW	46.7	46.7
S. N. 096-0061			
	NE	48.6	48.6
	NW	50.9	50.9
	SE	45.5	45.5
	SW	45.9	45.9
TOTAL:		378	378

PAVING SCHEDULE

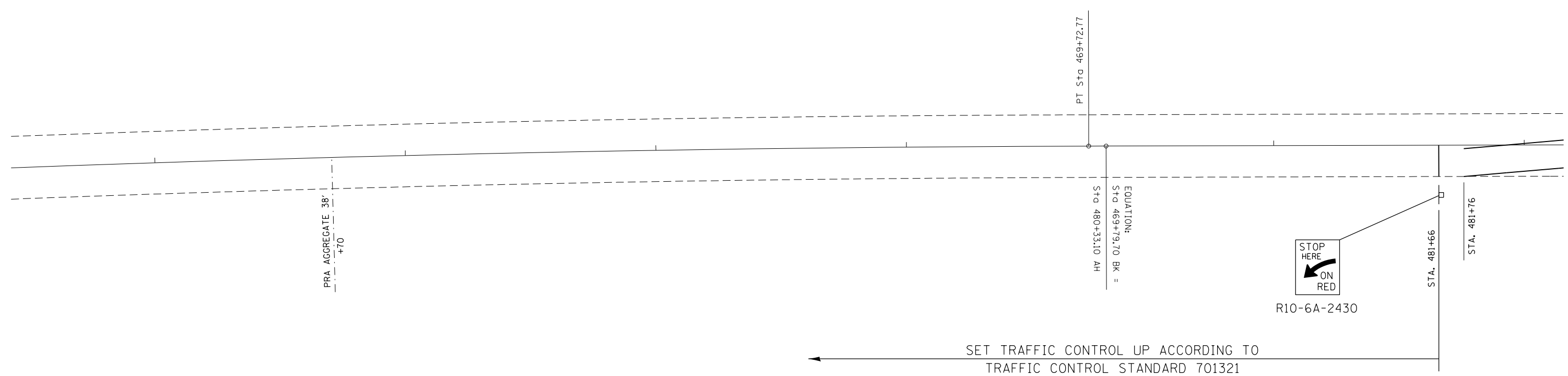
STATION TO STATION	HOT MIX ASPHALT SURFACE COURSE, MIX C, N70	HOT MIX ASPHALT SURFACE REMOVAL 1 1/2"	TEMPORARY RAMP
	TON	SO YD	SO YD
S. N. 096-0010			
	EAST	2.3	27.8
	WEST	2.3	27.8
S. N. 096-0061			
	EAST	0.0	0.0
	WEST	2.3	27.8
TOTAL:		7	84

TRAFFIC CONTROL DEVICES SCHEDULE

LOCATION	TEMPORARY CONCRETE BARRIER	RELOCATE TEMPORARY CONCRETE BARRIER	IMPACT ATTENUATORS, TEMPORARY (NON-REDIRECTIVE), TEST LEVEL 3	IMPACT ATTENUATORS, RELOCATE (NON-REDIRECTIVE), TEST LEVEL 3
	FOOT	FOOT	EACH	EACH
S. N. 096-0010				
483+16 TO 498+48	1537.5	1537.5	2.0	2.0
S. N. 096-0061				
345+75 TO 352+66	700.0	700.0	2.0	2.0
TOTALS		2237.5	2237.5	4.0

PAVEMENT MARKING SCHEDULE

STATION TO STATION	PAINT PAVEMENT MARKING - LINE 4"	PAVEMENT MARKING REMOVAL	TEMPORARY PAVEMENT MARKING 4"	SHORT TERM PAVEMENT MARKING	WORK ZONE PAVEMENT MARKING REMOVAL
	FOOT	SO FT	FOOT	FOOT	SO FT
S. N. 096-0010					
481+65 TO 500+00	4129	1376	4129	184	61
S. N. 096-0061					
346+00 TO 354+00	1800	600	1800	80	27
TOTALS		5929	1976	5929	264

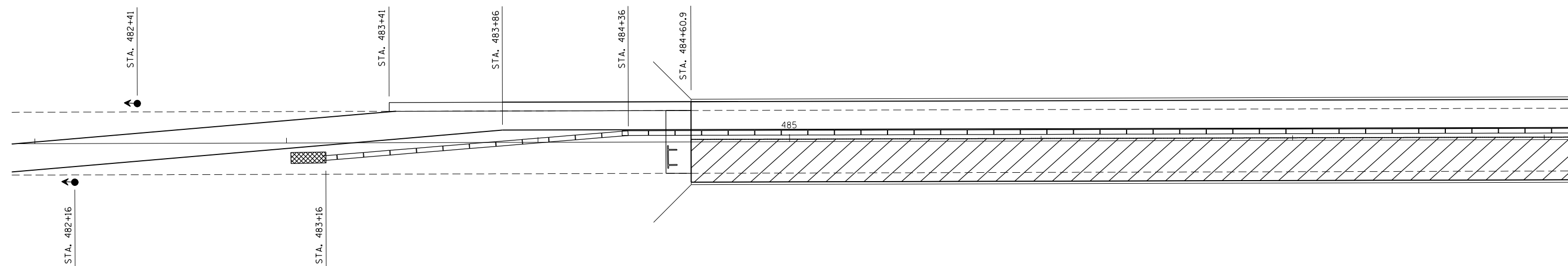
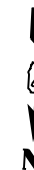


SYMBOLS

- Work area
- Drum with steady burning bi-directional light
- Sign
- Temporary concrete barrier
- Type III barricade
- Temporary rumble strip (when specified)
- Traffic signal
- Double vertical panel (see detail)
- Detector loops
- Crystal, bidirectional barrier wall/guardrail marker
- Impact attenuator

S.N. 096-0010

FILE NAME =	USER NAME = steffenmk	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	STAGE 1 TRAFFIC CONTROL PLAN			F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.		
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	PLOT SCALE = 40.0000' / in.	CHECKED -	REVISED -											
	PLOT DATE = 12/6/2013	DATE -	REVISED -											
												ILLINOIS FED. AID PROJECT		



SYMBOLS

- Work area
- Sign
- Type III barricade
- Traffic signal
- Detector loops
- Impact attenuator
- Drum with steady burning bi-directional light
- Temporary concrete barrier
- Temporary rumble strip (when specified)
- Double vertical panel (see detail)
- Crystal, bidirectional barrier wall/guardrail marker

S.N. 096-0010

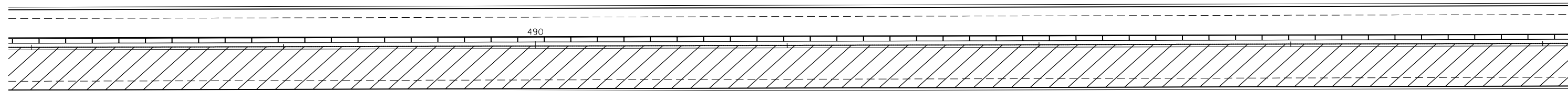
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**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**












**STAGE 1
TRAFFIC CONTROL PLAN**

SCALE: 20 SHEET 2 OF 5 SHEETS STA. 482+00 TO STA. 488+00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
823	D7 BRIDGE REPAIRS 2014-3	WAYNE	60	7
ILLINOIS FED. AID PROJECT			CONTRACT NO. 74618	

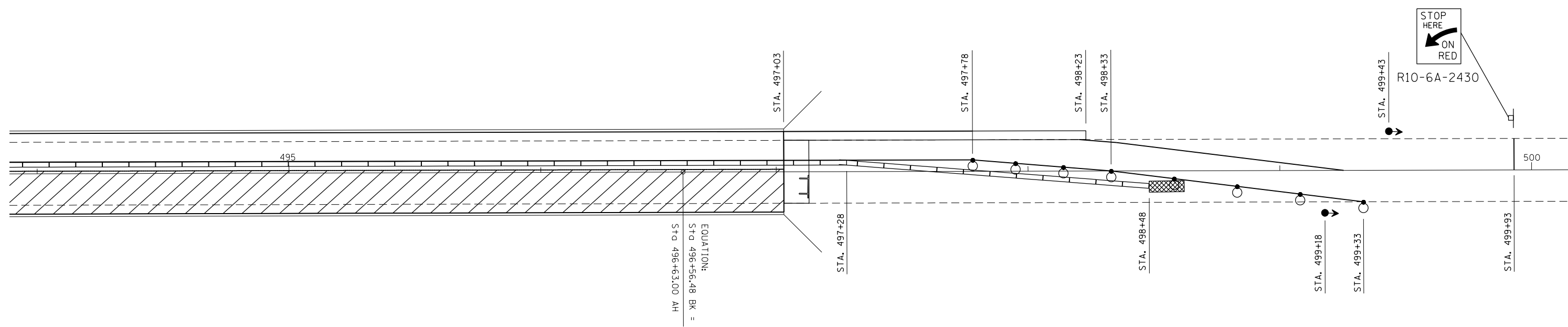


SYMBOLS

-  Work area
-  Sign
-  Type III barricade
-  Traffic signal
-  Detector loops
-  Impact attenuator
-  Drum with steady burning bi-directional light
-  Temporary concrete barrier
-  Temporary rumble strip (when specified)
-  Double vertical panel (see detail)
-  Crystal, bidirectional barrier wall/guardrail marker

S.N. 096-0010

FILE NAME =	USER NAME = steffenmk	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	STAGE 1 TRAFFIC CONTROL PLAN	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
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Default	PLOT DATE = 12/6/2013	CHECKED -	REVISED -			SCALE: 20		SHEET 3 OF 5 SHEETS		STA. 488+00 TO STA. 494+00	
		DATE -	REVISED -			ILLINOIS FED. AID PROJECT					

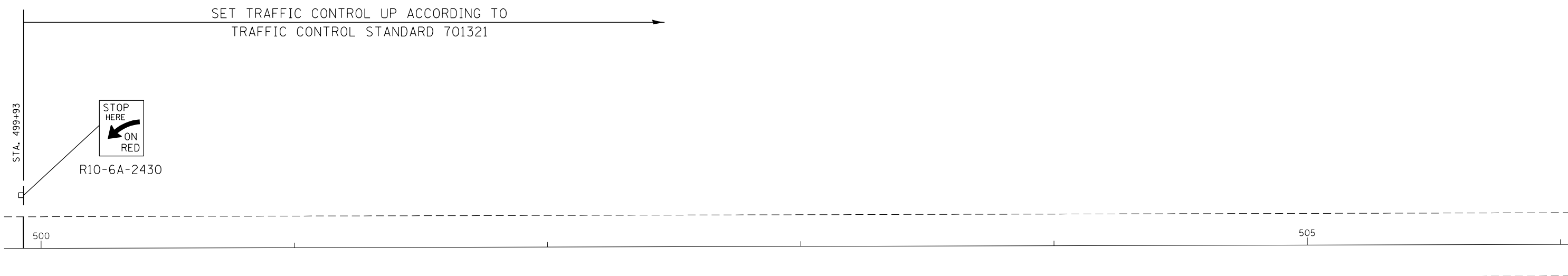


SYMBOLS

- Work area
- Sign
- Type III barricade
- Traffic signal
- Detector loops
- Impact attenuator
- Drum with steady burning bi-directional light
- Temporary concrete barrier
- Temporary rumble strip (when specified)
- Double vertical panel (see detail)
- Crystal, bidirectional barrier wall/guardrail marker

S.N. 096-0010

FILE NAME =	USER NAME = steffenmk	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	STAGE 1 TRAFFIC CONTROL PLAN	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
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						SCALE: 20	SHEET 4 OF 5 SHEETS	STA. 494+00	TO STA. 500+00		

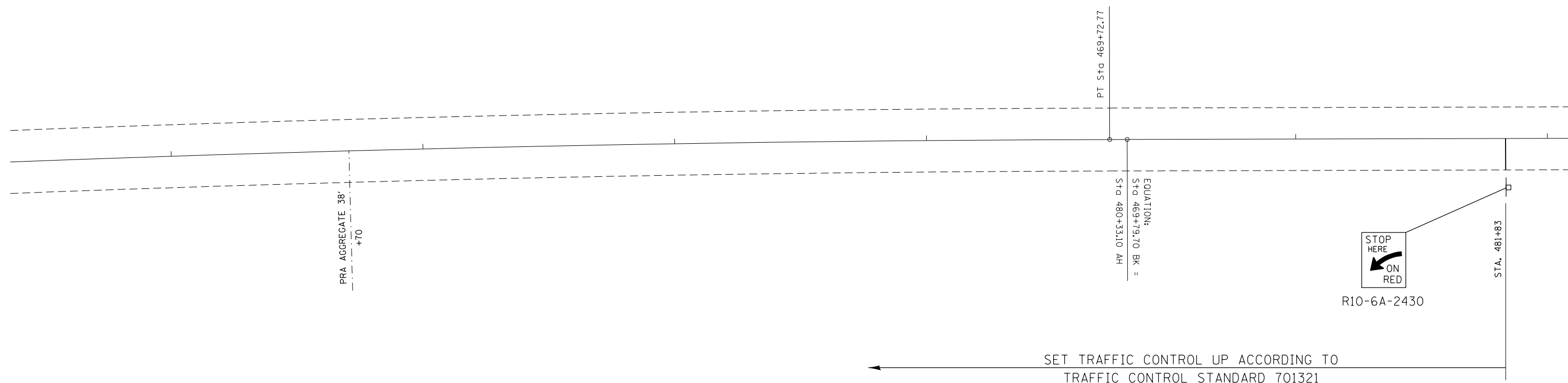


SYMBOLS

- Work area
- Drum with steady burning bi-directional light
- Sign
- Temporary concrete barrier
- Type III barricade
- Temporary rumble strip (when specified)
- Traffic signal
- Double vertical panel (see detail)
- Detector loops
- Crystal, bidirectional barrier wall/guardrail marker
- Impact attenuator

S.N. 096-0010

FILE NAME =	USER NAME = steffenmk	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	STAGE 1 TRAFFIC CONTROL PLAN	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
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Default	PLOT SCALE = 40.0000' / in.	CHECKED -	REVISED -			CONTRACT NO. 74618		ILLINOIS FED. AID PROJECT			
	PLOT DATE = 12/6/2013	DATE -	REVISED -			SCALE: 20	SHEET 5 OF 5 SHEETS	STA. 500+00	TO STA. 506+00		



SYMBOLS

- Work area
- Drum with steady burning bi-directional light
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S.N. 096-0010

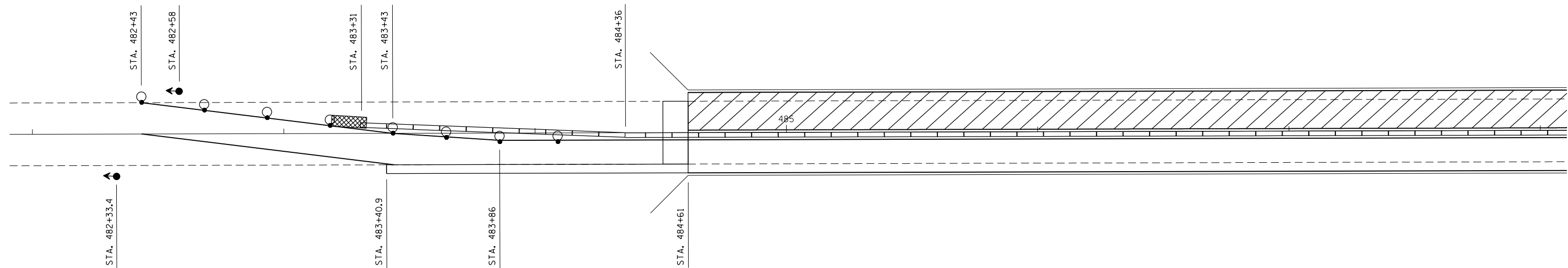
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	PLOT DATE = 12/6/2013	DATE -	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**STAGE 2
TRAFFIC CONTROL PLAN**

SCALE: 20 SHEET 1 OF 5 SHEETS STA. 466+00 TO STA. 482+00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
823	D7 BRIDGE REPAIRS 2014-3	WAYNE	60	11
CONTRACT NO.			74618	
ILLINOIS FED. AID PROJECT				



SYMBOLS

- Work area
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- Crystal, bidirectional barrier wall/guardrail marker

S.N. 096-0010

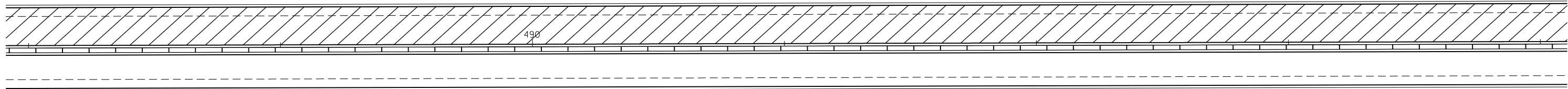
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	PLOT DATE = 12/6/2013	DATE -	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**








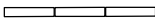



**STAGE 2
TRAFFIC CONTROL PLAN**

SCALE: 20 SHEET 2 OF 5 SHEETS STA. 482+00 TO STA. 488+00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
823	D7 BRIDGE REPAIRS 2014-3	WAYNE	60	12
CONTRACT NO.			74618	
ILLINOIS FED. AID PROJECT				

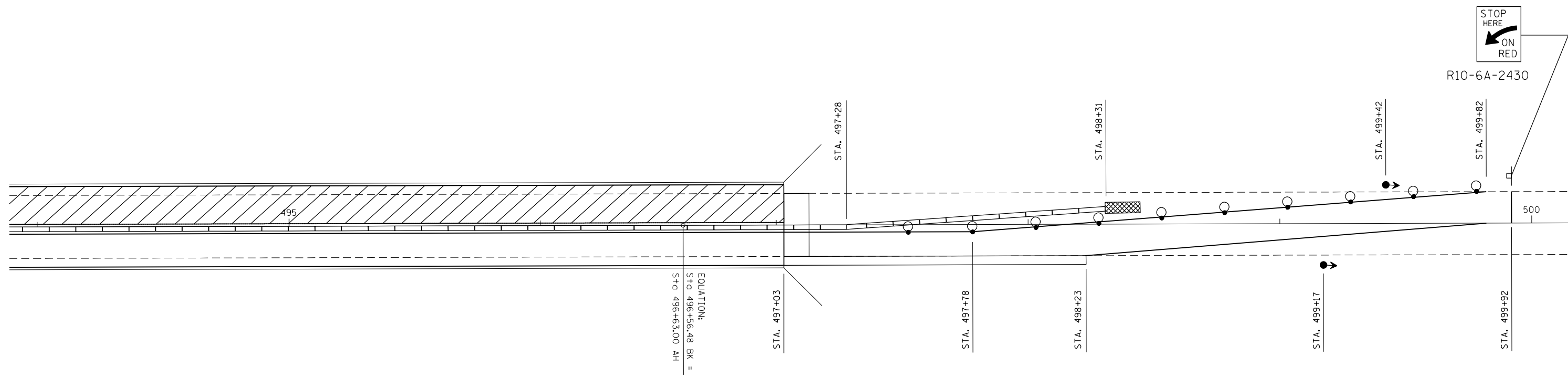


SYMBOLS

-  Work area
-  Sign
-  Type III barricade
-  Traffic signal
-  Detector loops
-  Impact attenuator
-  Drum with steady burning bi-directional light
-  Temporary concrete barrier
-  Temporary rumble strip (when specified)
-  Double vertical panel (see detail)
-  Crystal, bidirectional barrier wall/guardrail marker

S.N. 096-0010

FILE NAME =	USER NAME = steffenmk	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	STAGE 2 TRAFFIC CONTROL PLAN	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
Default	ct:\pw\work\p\idot\stefjenmk\d0340638\074618-sh-t-plan-0960010.dgn	DRAWN -	REVISED -			823	07 BRIDGE REPAIRS 2014-3	WAYNE	60	13	
	PLOT SCALE = 40.0000' / in.	CHECKED -	REVISED -			SCALE: 20		SHEET 3 OF 5 SHEETS		STA. 488+00 TO STA. 494+00	
	PLOT DATE = 12/6/2013	DATE -	REVISED -			ILLINOIS FED. AID PROJECT					
						CONTRACT NO. 74618					



SYMBOLS

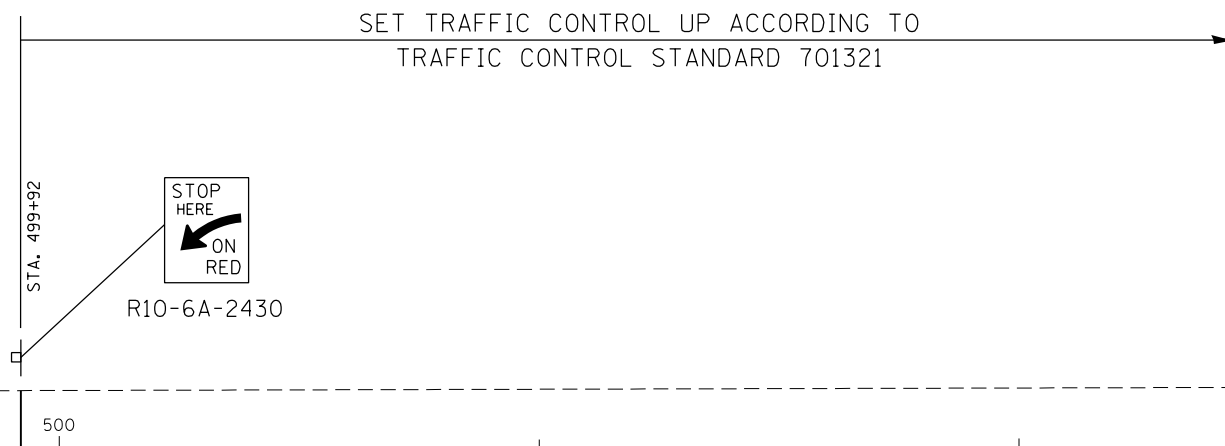
- Work area
- Sign
- Type III barricade
- Traffic signal
- Detector loops
- Impact attenuator
- Drum with steady burning bi-directional light
- Temporary concrete barrier
- Temporary rumble strip (when specified)
- Double vertical panel (see detail)
- Crystal, bidirectional barrier wall/guardrail marker

S.N. 096-0010

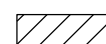


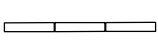







FILE NAME =	USER NAME = steffenmk	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	STAGE 2 TRAFFIC CONTROL PLAN			F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
Default	ct:\pw\work\p\dot\steffenmk\d0340638\074618-sh-t-plan-0960010.dgn	DRAWN -	REVISED -		SCALE: 20	SHEET 4	OF 5 SHEETS	823	D7 BRIDGE REPAIRS 2014-3	WAYNE	60	14
	PLOT SCALE = 40.0000' / in.	CHECKED -	REVISED -		STA. 494+00	TO STA. 500+00		CONTRACT NO. 74618		ILLINOIS FED. AID PROJECT		
	PLOT DATE = 12/6/2013	DATE -	REVISED -									



SET TRAFFIC CONTROL UP ACCORDING TO
TRAFFIC CONTROL STANDARD 701321

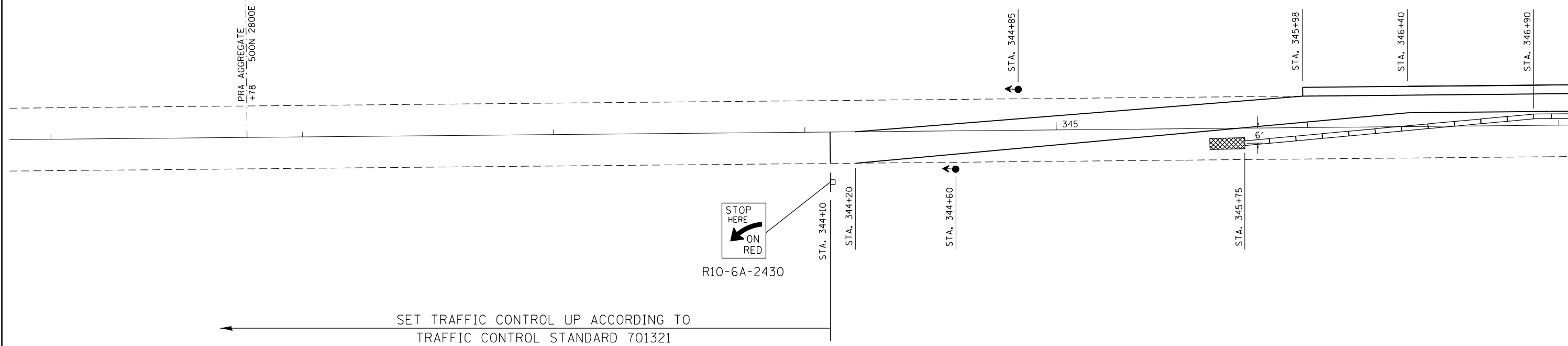


SYMBOLS












- | | |
|--------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------|
|  Work area |  Drum with steady burning bi-directional light |
|  Sign |  Temporary concrete barrier |
|  Type III barricade |  Temporary rumble strip (when specified) |
|  Traffic signal |  Double vertical panel (see detail) |
|  Detector loops |  Crystal, bidirectional barrier wall/guardrail marker |
|  Impact attenuator | |

S.N. 096-0010

FILE NAME =	USER NAME = steffenmk	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	STAGE 2 TRAFFIC CONTROL PLAN			F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
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Default	PLOT SCALE = 40.0000' / in.	CHECKED -	REVISED -		SCALE: 20			SHEET 5	OF 5 SHEETS	STA. 500+00	TO STA. 506+00	CONTRACT NO. 74618	
	PLOT DATE = 12/6/2013	DATE -	REVISED -		ILLINOIS FED. AID PROJECT								



SYMBOLS

-  Work area
-  Drum with steady burning bi-directional light
-  Sign
-  Temporary concrete barrier
-  Type III barricade
-  Temporary rumble strip (when specified)
-  Traffic signal
-  Double vertical panel (see detail)
-  Detector loops
-  Crystal, bidirectional barrier wall/guardrail marker
-  Impact attenuator

S.N. 096-0061

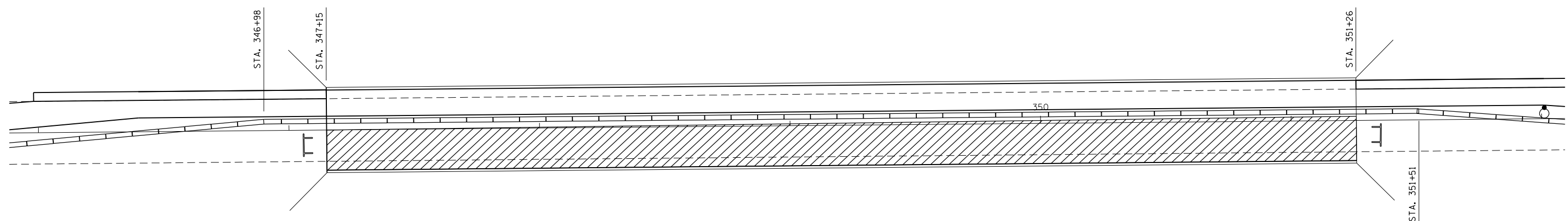
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Default	PLOT SCALE = 40.0000' / in.	CHECKED -	REVISED -
	PLOT DATE = 12/6/2013	DATE -	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**STAGE 1
TRAFFIC CONTROL PLAN**

SCALE: 20 SHEET 1 OF 3 SHEETS STA. 341+00 TO STA. 347+00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
823	D7 BRIDGE REPAIRS 2014-3	WAYNE	60	16
CONTRACT NO. 74618			ILLINOIS FED. AID PROJECT	

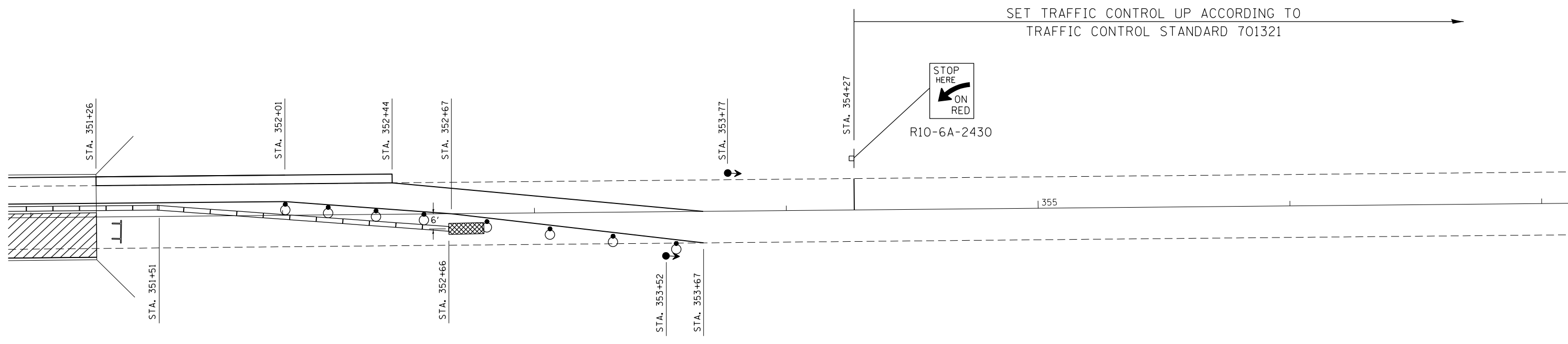


SYMBOLS

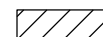










- Work area
- Sign
- Type III barricade
- Traffic signal
- Detector loops
- Impact attenuator
- Drum with steady burning bi-directional light
- Temporary concrete barrier
- Temporary rumble strip (when specified)
- Double vertical panel (see detail)
- Crystal, bidirectional barrier wall/guardrail marker

S.N. 096-0061

FILE NAME =	USER NAME = steffenmk	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	STAGE 1 TRAFFIC CONTROL PLAN			F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
Default	ct:\pw\work\p\idot\steffenmk\d0340638\074618-sh-t-plan-0960061.dgn	DRAWN -	REVISED -		SCALE: 20	SHEET 2	OF 3	SHEETS	823	07 BRIDGE REPAIRS 2014-3	WAYNE	60	17
	PLOT SCALE = 40.0000' / in.	CHECKED -	REVISED -		STA. 346+00	TO STA. 352+00				CONTRACT NO. 74618			
	PLOT DATE = 12/6/2013	DATE -	REVISED -		ILLINOIS FED. AID PROJECT								



SYMBOLS

-  Work area
-  Sign
-  Type III barricade
-  Traffic signal
-  Detector loops
-  Impact attenuator
-  Drum with steady burning bi-directional light
-  Temporary concrete barrier
-  Temporary rumble strip (when specified)
-  Double vertical panel (see detail)
-  Crystal, bidirectional barrier wall/guardrail marker

S.N. 096-0061

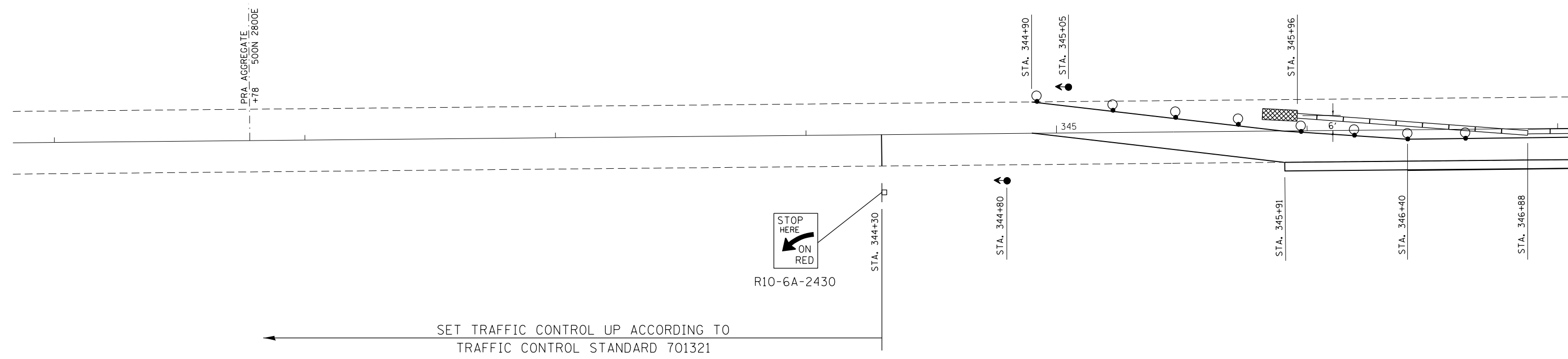
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	PLOT DATE = 12/6/2013	DATE -	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**





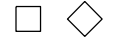






**STAGE 1
TRAFFIC CONTROL PLAN**

SCALE: 20 SHEET 3 OF 3 SHEETS STA. 351+00 TO STA. 357+00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
823	D7 BRIDGE REPAIRS 2014-3	WAYNE	60	18
CONTRACT NO.			74618	
ILLINOIS FED. AID PROJECT				

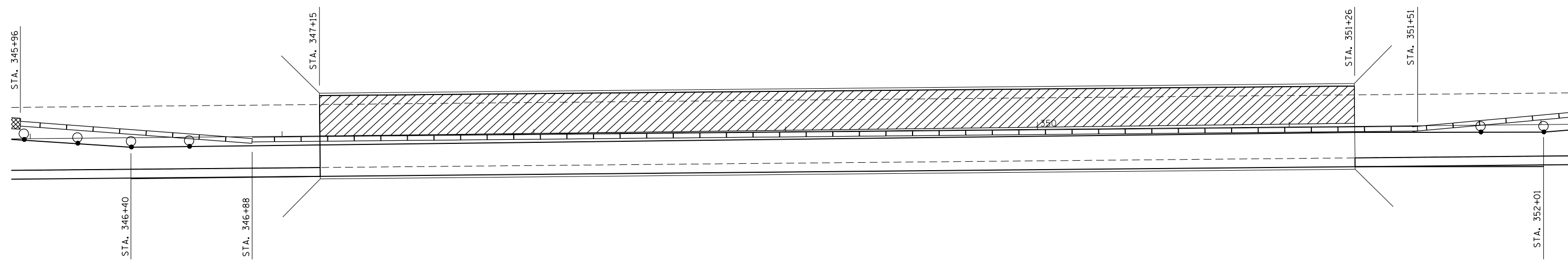


SYMBOLS

-  Work area
-  Sign
-  Type III barricade
-  Traffic signal
-  Detector loops
-  Impact attenuator
-  Drum with steady burning bi-directional light
-  Temporary concrete barrier
-  Temporary rumble strip (when specified)
-  Double vertical panel (see detail)
-  Crystal, bidirectional barrier wall/guardrail marker

S.N. 096-0061

FILE NAME =	USER NAME = steffenmk	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	STAGE 2 TRAFFIC CONTROL PLAN			F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
ci:\pw\work\p\idot\steffenmk\d0340638\074618-sh-t-plan-0960061.dgn		DRAWN -	REVISED -		823	D7 BRIDGE REPAIRS 2014-3	WAYNE	60	19			
Default	PLOT SCALE = 40.0000' / in.	CHECKED -	REVISED -		SCALE: 20 SHEET 1 OF 3 SHEETS STA. 341+00 TO STA. 347+00			CONTRACT NO. 74618				
	PLOT DATE = 12/6/2013	DATE -	REVISED -		ILLINOIS FED. AID PROJECT							

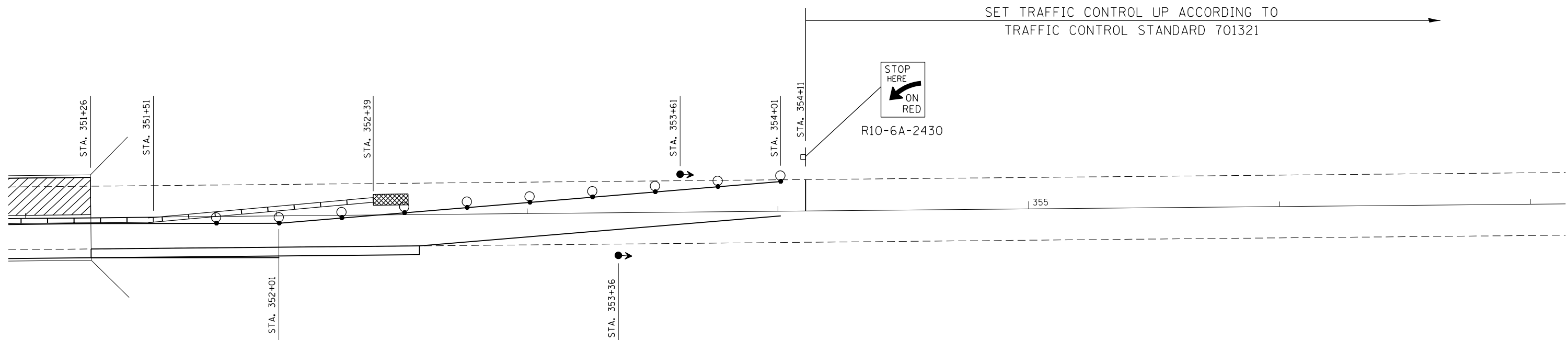


SYMBOLS












- Work area
- Sign
- Type III barricade
- Traffic signal
- Detector loops
- Impact attenuator
- Drum with steady burning bi-directional light
- Temporary concrete barrier
- Temporary rumble strip (when specified)
- Double vertical panel (see detail)
- Crystal, bidirectional barrier wall/guardrail marker

S.N. 096-0061

FILE NAME =	USER NAME = steffenmk	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	STAGE 2 TRAFFIC CONTROL PLAN			F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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Default	PLOT SCALE = 40.0000' / in.	CHECKED -	REVISED -		SCALE: 20 SHEET 2 OF 3 SHEETS STA. 346+00 TO STA. 352+00			CONTRACT NO. 74618				
	PLOT DATE = 12/6/2013	DATE -	REVISED -		ILLINOIS FED. AID PROJECT							



SYMBOLS

-  Work area
-  Sign
-  Type III barricade
-  Traffic signal
-  Detector loops
-  Impact attenuator
-  Drum with steady burning bi-directional light
-  Temporary concrete barrier
-  Temporary rumble strip (when specified)
-  Double vertical panel (see detail)
-  Crystal, bidirectional barrier wall/guardrail marker

S.N. 096-0061

FILE NAME =	USER NAME = steffenmk	DESIGNED -	REVISED -
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	PLOT DATE = 12/6/2013	DATE -	REVISED -

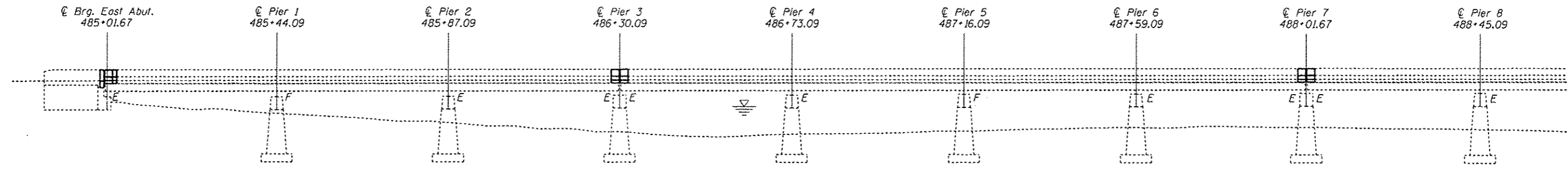
**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**STAGE 2
TRAFFIC CONTROL PLAN**

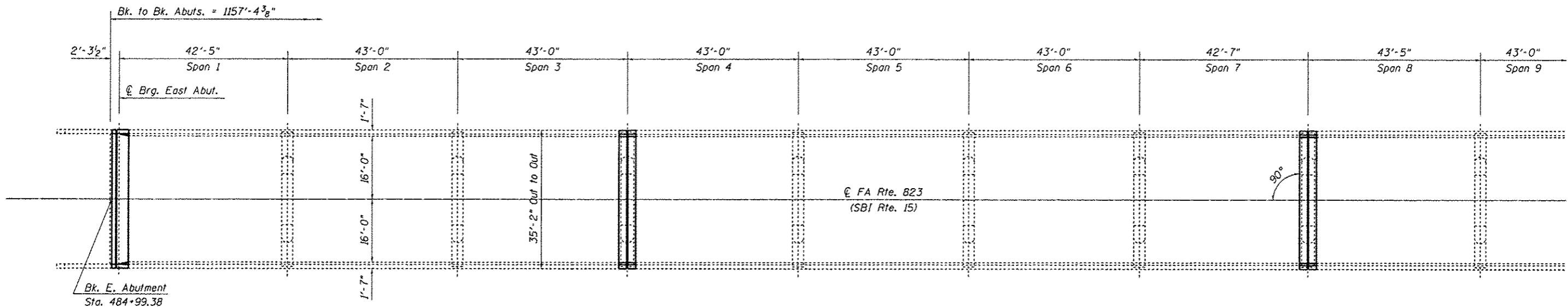
SCALE: 20 SHEET 3 OF 3 SHEETS STA. 351+00 TO STA. 357+00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
823	D7 BRIDGE REPAIRS 2014-3	WAYNE	60	21
CONTRACT NO. 74618			ILLINOIS FED. AID PROJECT	

Existing structure built in 1924, SBI 15, Sec. 22G & F, reconstructed in 1955 as Sec. 22BY. The 21 span multi-beam structure was again reconstructed in 1980 as FA 823, Sec. 22BR-7 at Sta. 492+75. SN. 096-0010 carries FA 823 over the Little Wabash River. The proposed project consists of new expansion joints and new elastomeric bearings.



ELEVATION



PLAN

EXISTING DESIGN STRESSES

- $f'_c = 3,500 \text{ psi (Deck Slab)}$
- $f'_y = 60,000 \text{ psi (Deck Reinf.)}$
- $f_c = 1,400 \text{ psi (Curb, Parapet, Substructure)}$
- $f_s = 24,000 \text{ psi (Reinf. Steel, Grade 60)}$
- $f_y = 50,000 \text{ psi (M223 Grade 50 Structural Steel)}$
- $f_y = 36,000 \text{ psi (M183 Structural Steel)}$
- $f_s = 18,000 \text{ psi Structural Steel Existing @ Girders}$
- $vc = 56.2 \text{ psi}$
- $n = 9$



David Carl Puzey 1/23/14
Expincs 1/30/14

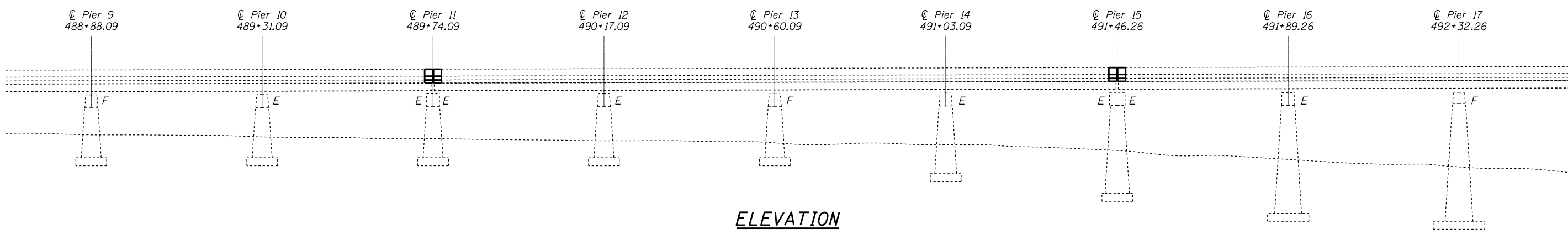
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

GENERAL PLAN AND ELEVATION
SN. 096-0010 (SPANS 1 THRU 9)

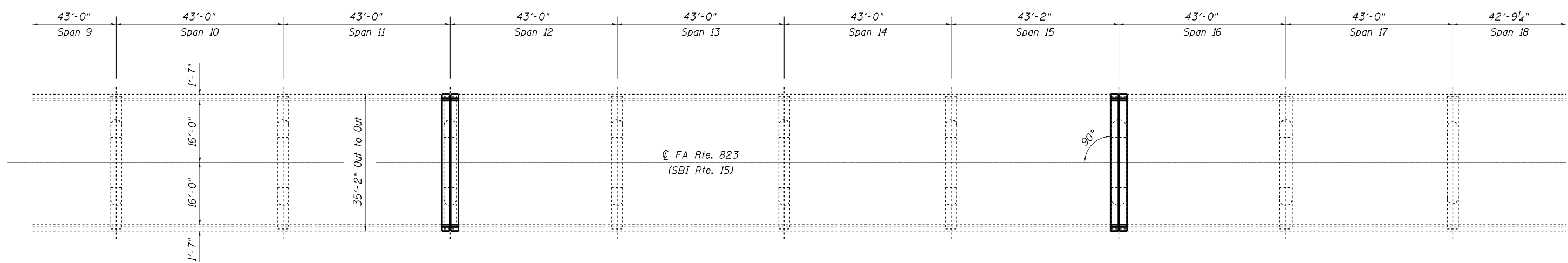
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
823	07 BRIDGE REPAIRS 2014-3	WAYNE	60	22
ILLINOIS FED. AID PROJECT			CONTRACT NO. 74618	

FILE NAME	USER NAME	DESIGNED	REVISED
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		MJM	-
		MEA	-
			-

SCALE: N/A SHEET 1 OF 35 SHEETS STA. TO STA.

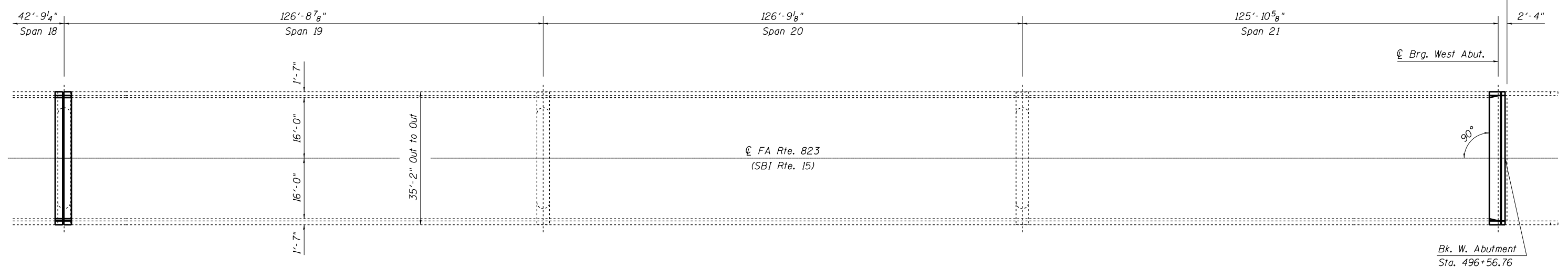
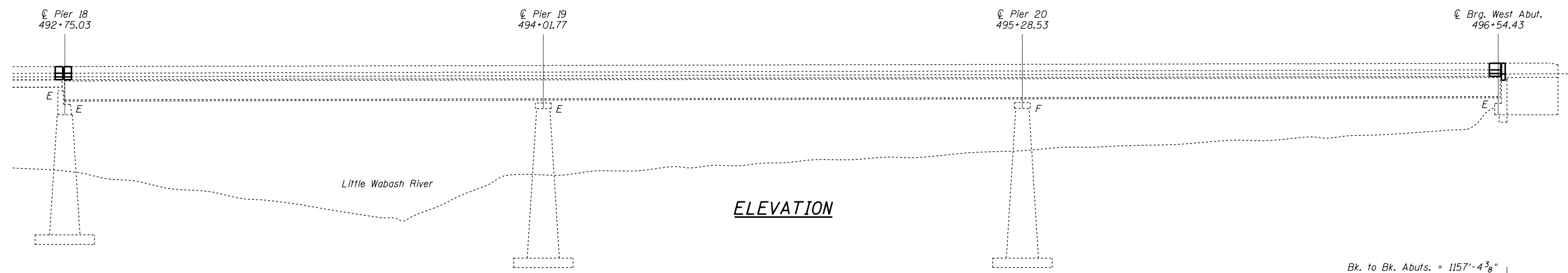


ELEVATION



PLAN

FILE NAME =	USER NAME = steffenmk	DESIGNED - MJM	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	GENERAL PLAN AND ELEVATION SN. 096-0010 (SPANS 10 THRU 18)			F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
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	PLOT SCALE = 40.0000' / in.	CHECKED - MEA	REVISED -										CONTRACT NO. 74618
	PLOT DATE = 12/6/2013	DATE - 08/13/2013	REVISED -										ILLINOIS FED. AID PROJECT



FILE NAME =	USER NAME = steffenmk	DESIGNED - MJM	REVISED -
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Default	PLOT SCALE = 40.0000' / in.	CHECKED - MEA	REVISED -
	PLOT DATE = 12/6/2013	DATE - 08/13/2013	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**GENERAL PLAN AND ELEVATION
SN. 096-0010 (SPANS 19 THRU 21)**

SCALE: N/A SHEET 3 OF 35 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
823	07 BRIDGE REPAIRS 2014-3	WAYNE	60	24
CONTRACT NO.			74618	
ILLINOIS FED. AID PROJECT				

GENERAL NOTES

Plan dimensions and details relative to existing plans are subject to nominal construction variations. The Contractor shall field verify existing dimensions and details affecting new construction and make necessary approved adjustments prior to construction or ordering materials. Such variations shall not be cause for additional compensation for a change in scope of the work, however, the Contractor will be paid for the quantity actually furnished at the unit price bid for the work.

Existing reinforcement bars extending into the removal area shall be cleaned, straightened and incorporated into the new construction. Any reinforcement bars that are damaged during concrete removal operations shall be replaced using an approved bar splicer or anchorage system. Cost included in CONCRETE REMOVAL.

Joint openings shall be adjusted according to Article 520.04 of the Standard Specifications when the deck is poured at an ambient temperature other than 50°F.

Removal and reinstallation of guardrail sections will be necessary for construction of the expansion joints. All existing embedded anchors that are within the concrete removal area shall be cleaned and incorporated in the new construction or new approved alternatives shall be supplied and installed. This work and all materials shall be included in the contract unit price for CONCRETE SUPERSTRUCTURE.

Prior to pouring the new concrete deck, all heavy and loose rust, loose mill scale, and other loose or potentially detrimental foreign material shall be removed from the surfaces in contact with concrete. Tightly adhered paint may remain unless otherwise noted. Removal shall be accomplished by methods that will not damage the steel and the cost will be included in the pay item covering removal of the existing concrete.

All structural steel shall conform to AASHTO Classification M-270 Gr. 36, unless otherwise noted.

Reinforcement bars designated (E) shall be epoxy coated.

The deck surface shall have its final finish tined according to Article 420.09(e)(1) of the Standard Specifications. Cost included with Concrete Superstructures.

The existing structural steel coating contains lead. The Contractor shall take appropriate precautions to deal with the presence of lead on this project.

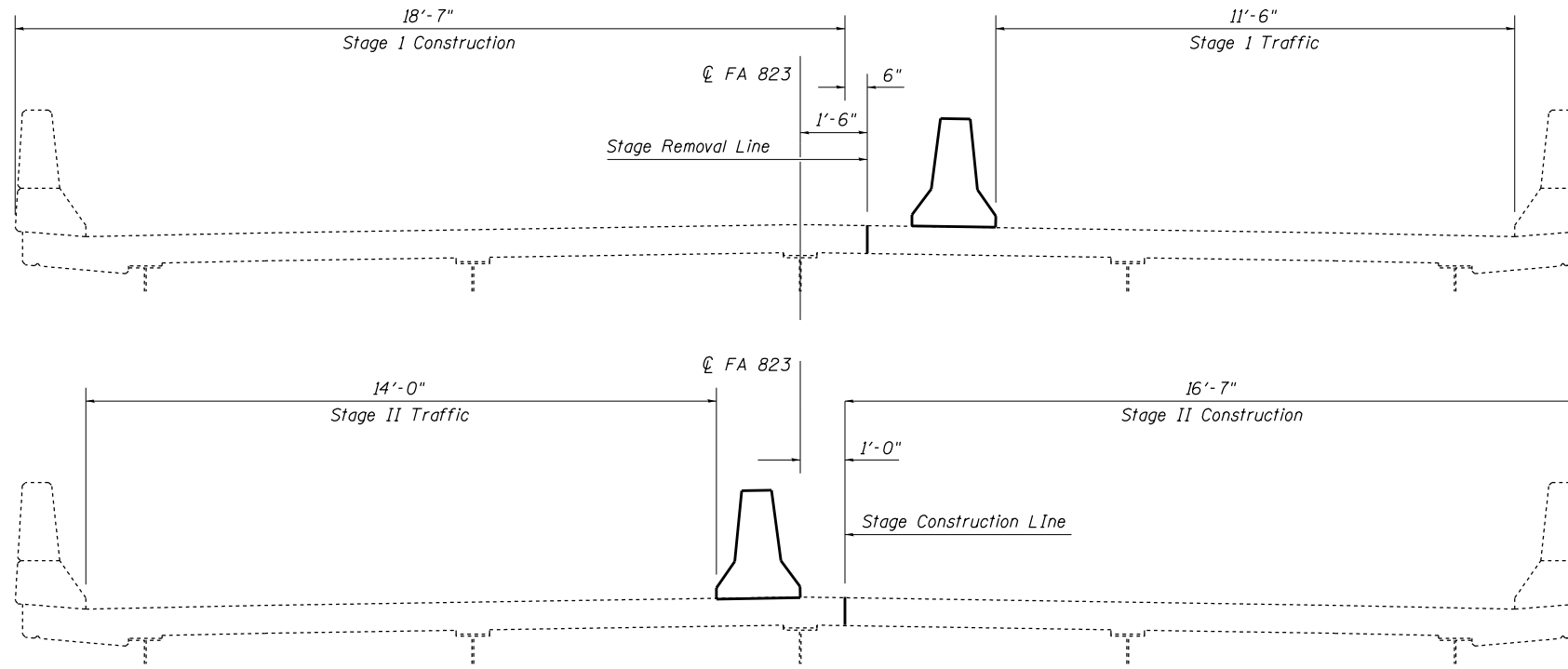
TOTAL BILL OF MATERIALS

SN 096-0010

ITEM	UNIT	QUANTITY
Concrete Removal	Cu. Yd.	36.1
Concrete Superstructure	Cu. Yd.	36.1
Reinforcement Bars, Epoxy Coated	Pound	5190
Bar Splicers	Each	112
Protective Coat	Sq Yd	33
Preformed Joint Strip Seal	Foot	239.0
Elastomeric Bearing Assembly, Type I	Each	50
Elastomeric Bearing Assembly, Type II	Each	5
Jack and Remove Existing Bearings	Each	60
Furnishing and Erecting Structural Steel	Pound	10090
Anchor Bolts 1"φ	Each	100
Anchor Bolts 1 1/4"φ	Each	20

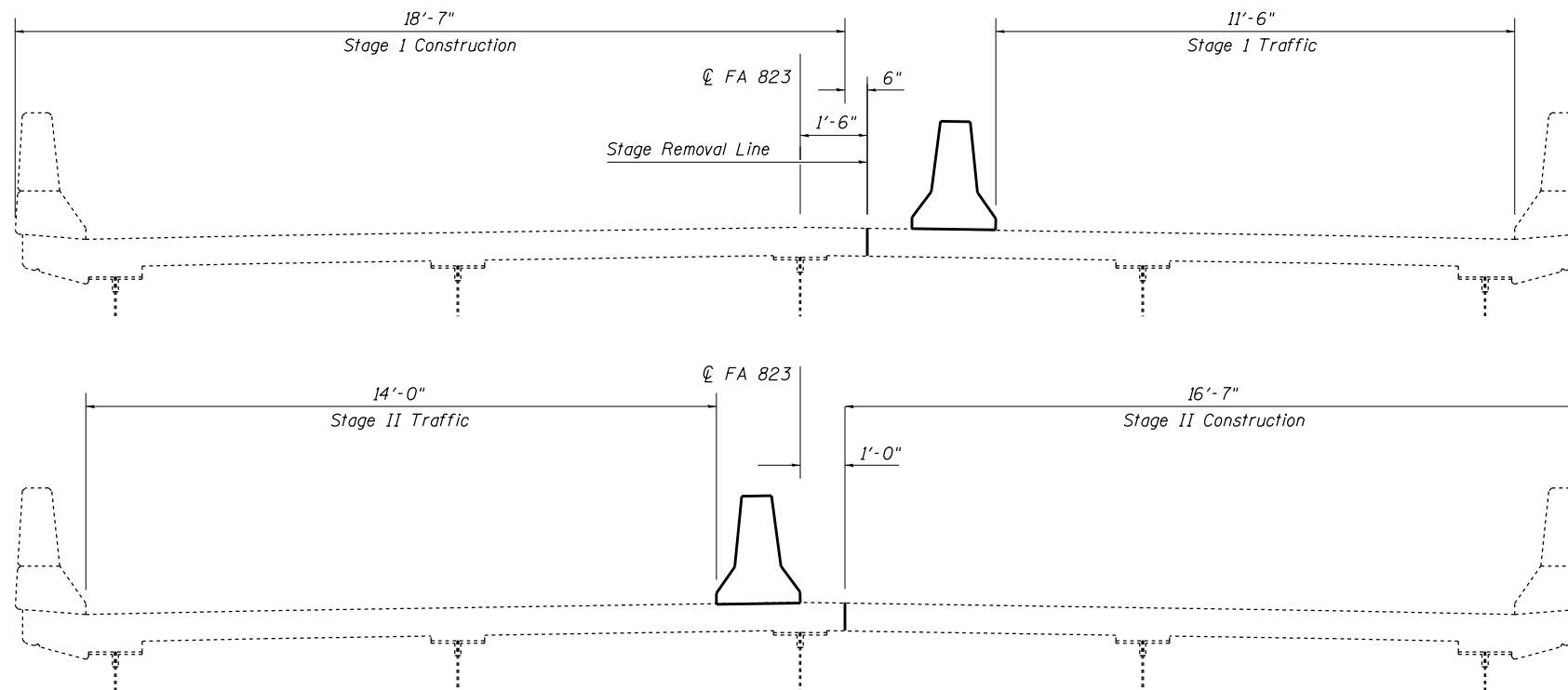
*Apply to new concrete only.

FILE NAME *	USER NAME *	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	GENERAL NOTES AND BILL OF MATERIALS				F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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Default	PLOT SCALE *	CHECKED -	REVISED -		SN. 096-0010				CONTRACT NO. 74618				
	PLOT DATE *	DATE -	REVISED -		SCALE: N/A	SHEET 4	OF 35 SHEETS	STA. TO STA.	ILLINOIS FED. AID PROJECT				



STAGE I & II LOOKING EAST

(SPANS 1 THRU 18)



STAGE I & II LOOKING EAST

(SPANS 19 THRU 21)

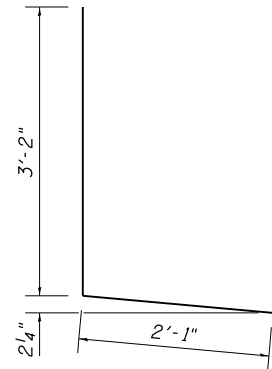
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Default	PLOT SCALE = 40.0000' / in.	CHECKED - MEA	REVISED -
	PLOT DATE = 12/6/2013	DATE - 08/13/2013	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

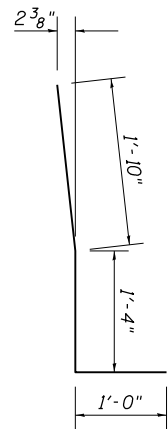
**TYPICAL CROSS SECTIONS
SN. 096-0010**

SCALE: N/A SHEET 5 OF 35 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
823	07 BRIDGE REPAIRS 2014-3	WAYNE	60	26
CONTRACT NO. 74618			ILLINOIS FED. AID PROJECT	



Bar d(E)



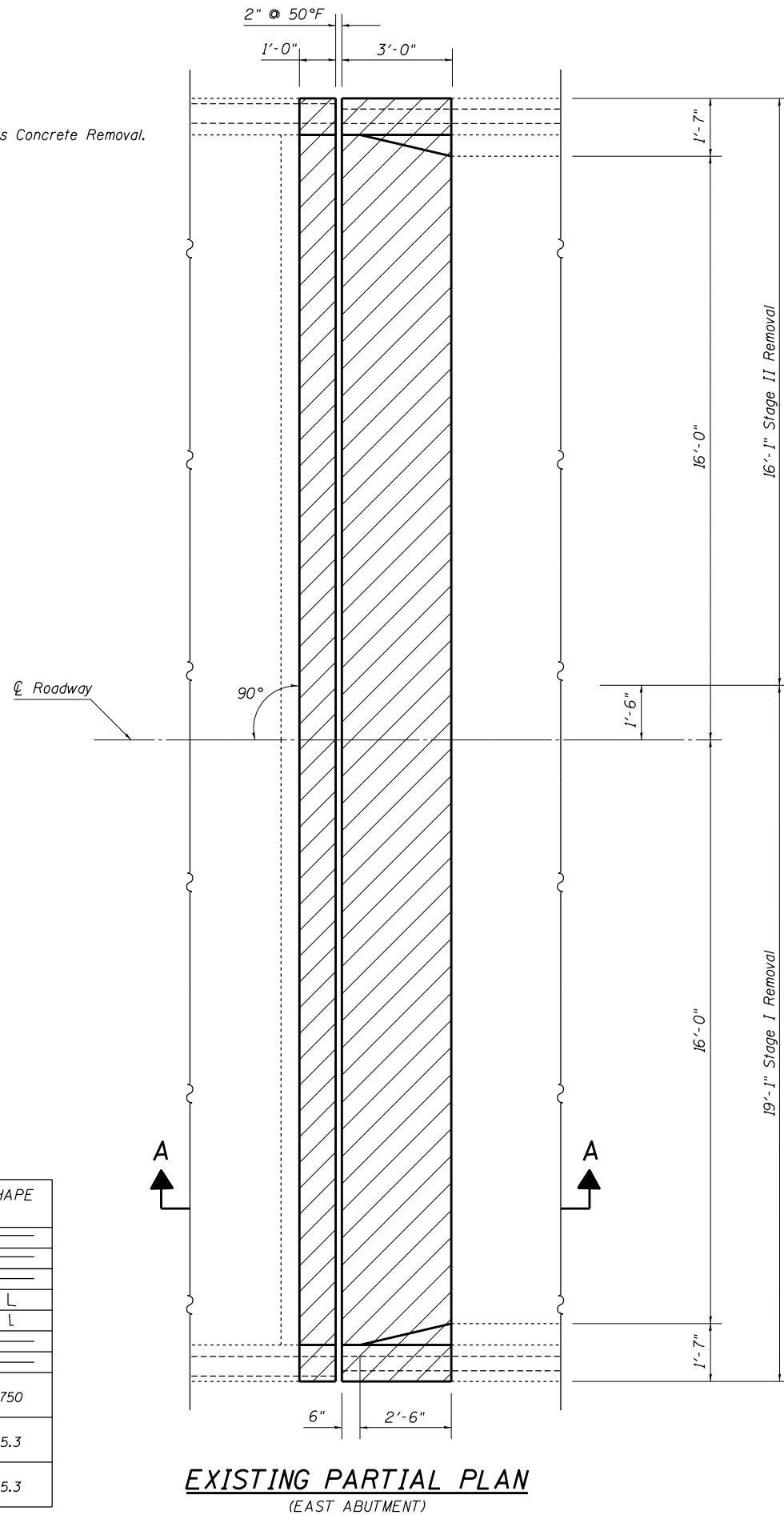
Bar d2(E)

For Section A-A and B-B, See Sheet 7 of 35.

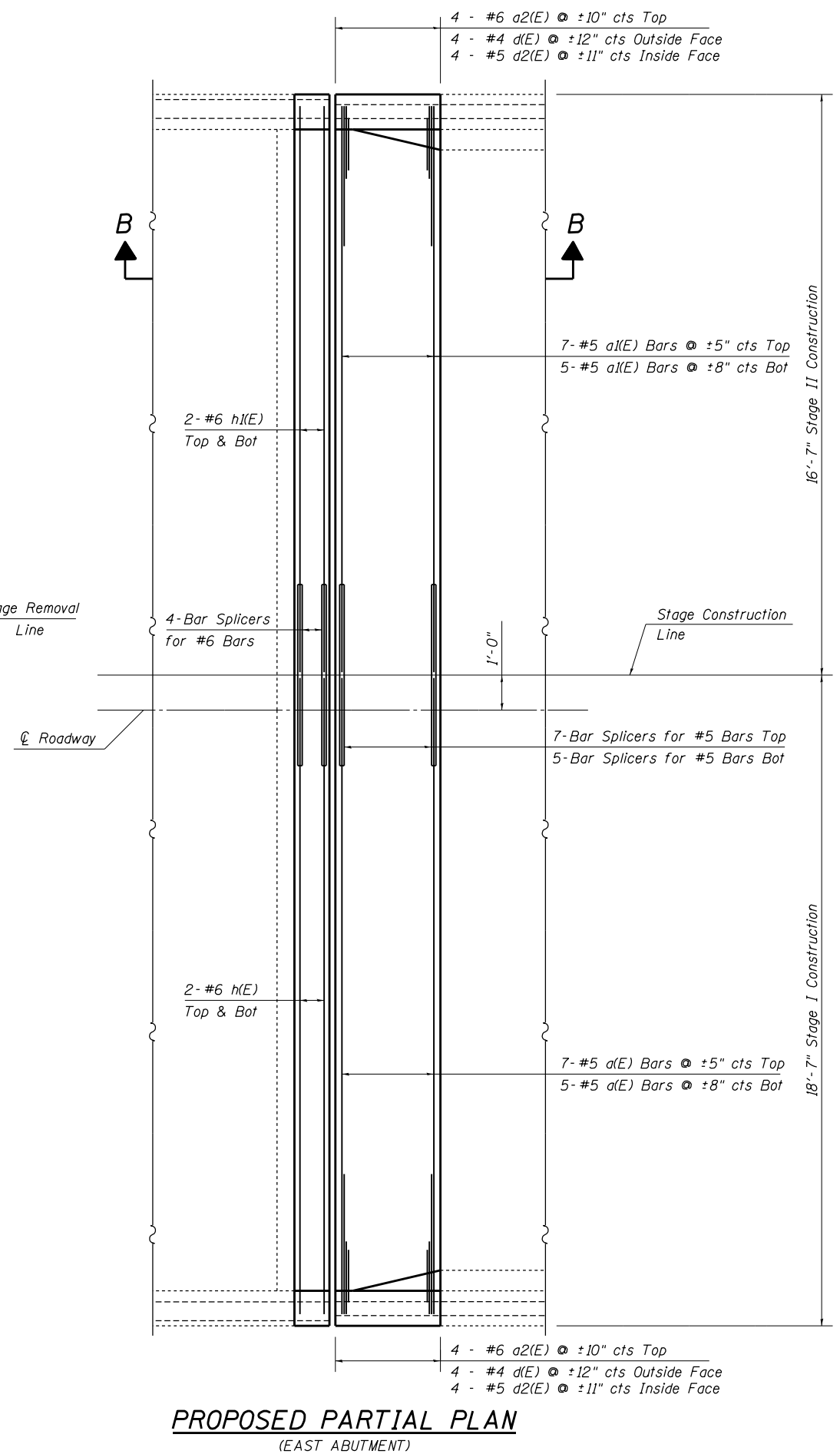
BILL OF MATERIAL
(EAST ABUTMENT)

BAR	NUMBER OF BARS		TOTAL	SIZE	LENGTH	SHAPE
	STAGE I	STAGE II				
a(E)	12		12	#5	18'-1"	—
a1(E)		12	12	#5	16'-1"	—
a2(E)	4	4	8	#6	4'-0"	—
d(E)	4	4	8	#4	5'-3"	L
d2(E)	4	4	8	#5	4'-2"	L
h(E)	4		4	#6	18'-3"	—
h1(E)		4	4	#6	16'-3"	—
REINFORCEMENT BARS (EPOXY COATED)					POUND	750
CONCRETE REMOVAL					CU YD	5.3
CONCRETE SUPERSTRUCTURE					CU YD	5.3

Hatching indicates Concrete Removal.



EXISTING PARTIAL PLAN
(EAST ABUTMENT)



PROPOSED PARTIAL PLAN
(EAST ABUTMENT)

FILE NAME =	USER NAME = steffenmk	DESIGNED - MJM	REVISED -
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Default	PLOT SCALE = 40.0000' / in.	CHECKED - MEA	REVISED -
	PLOT DATE = 12/6/2013	DATE - 08/13/2013	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

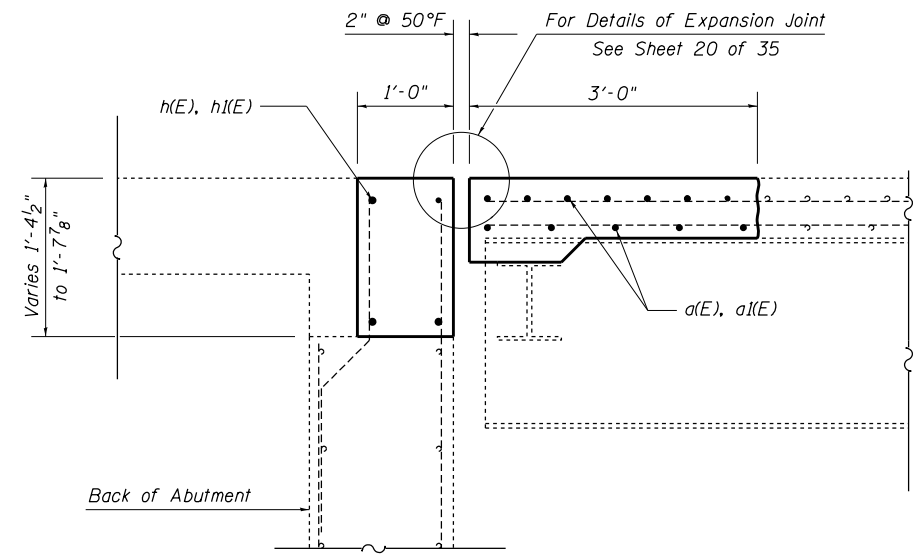
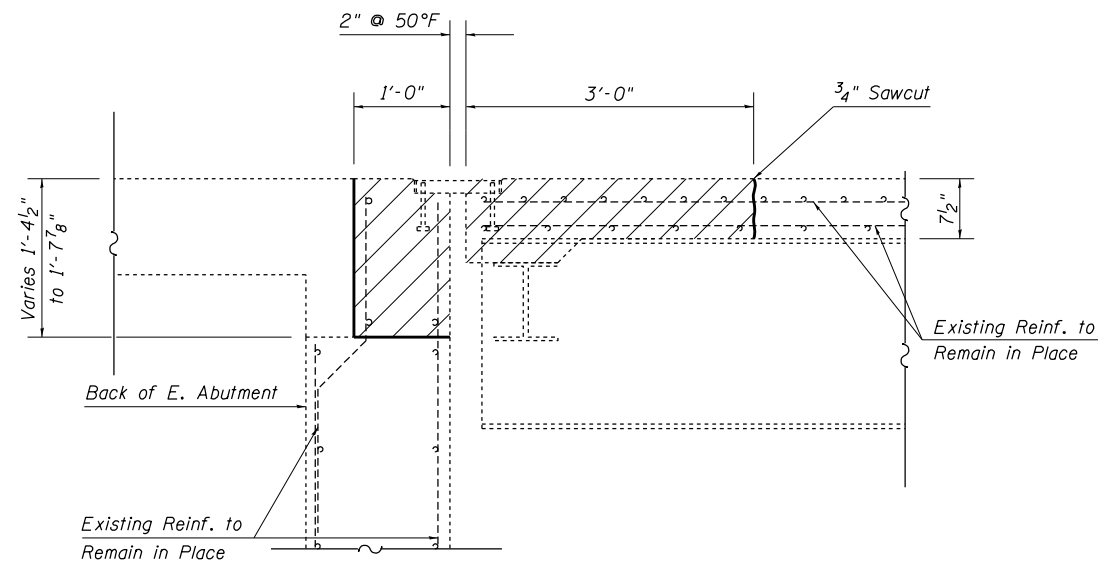
EXPANSION JOINT REPLACEMENT DETAILS - EAST ABUTMENT
SN. 096-0010

SCALE: N/A SHEET 6 OF 35 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
823	07 BRIDGE REPAIRS 2014-3	WAYNE	60	27
CONTRACT NO. 74618			ILLINOIS FED. AID PROJECT	

Hatching Indicates Concrete Removal.

- Existing Reinforcement
- Proposed Reinforcement



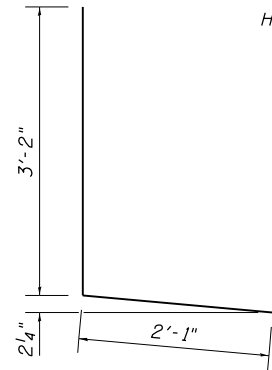
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	PLOT DATE = 12/6/2013	DATE - 08/13/2013	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

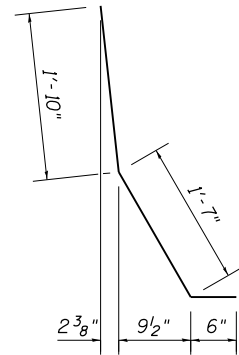
EXPANSION JOINT REPLACEMENT DETAILS - EAST ABUTMENT
SN. 096-0010

SCALE: N/A SHEET 7 OF 35 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
823	DT BRIDGE REPAIRS 2014-3	WAYNE	60	28
ILLINOIS FED. AID PROJECT			CONTRACT NO. 74618	



Bar d(E)



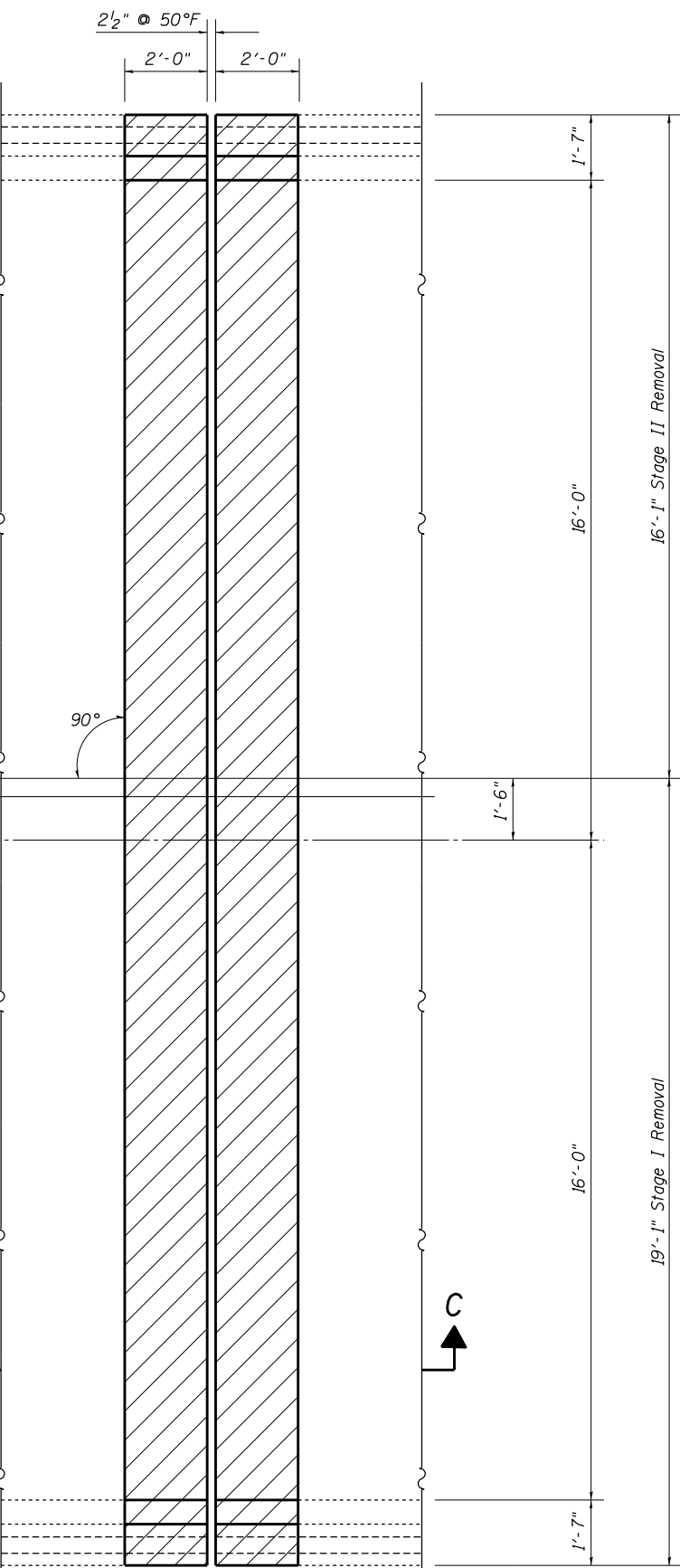
Bar d(E)

Hatching indicates Concrete Removal.

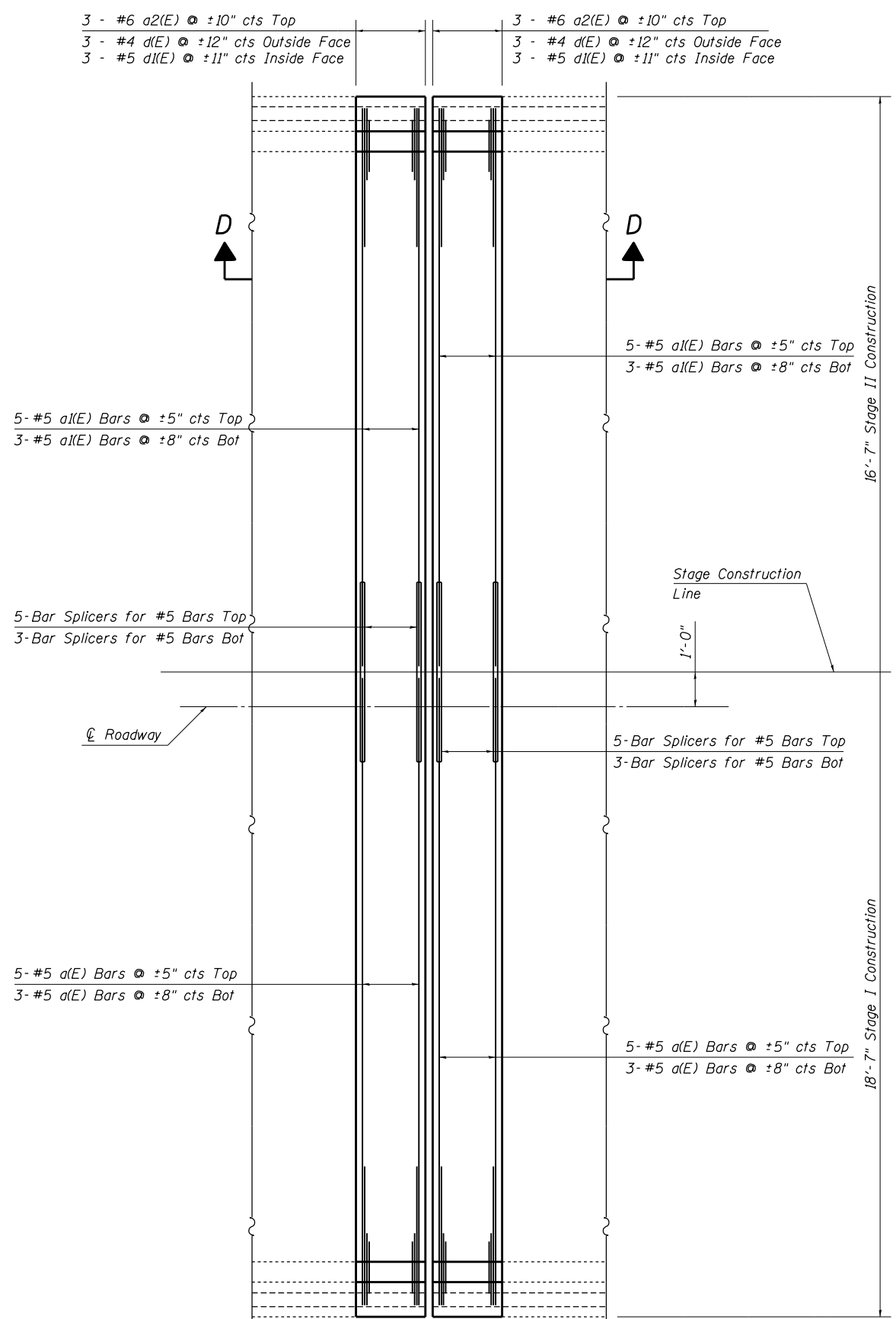
For Section C-C and D-D, See Sheet 9 of 35

BILL OF MATERIAL
(PER PIER)

BAR	NUMBER OF BARS		TOTAL	SIZE	LENGTH	SHAPE	
	STAGE I	STAGE II					
a(E)	16		16	#5	18'-1"	—	
a(E)		16	16	#5	16'-1"	—	
a2(E)	6	6	12	#6	4'-0"	—	
d(E)	6	6	12	#4	5'-3"	L	
d(E)	6	6	12	#5	3'-11"	\	
REINFORCEMENT BARS (EPOXY COATED)						POUND	740
CONCRETE REMOVAL						CU YD	5.1
CONCRETE SUPERSTRUCTURE						CU YD	5.1



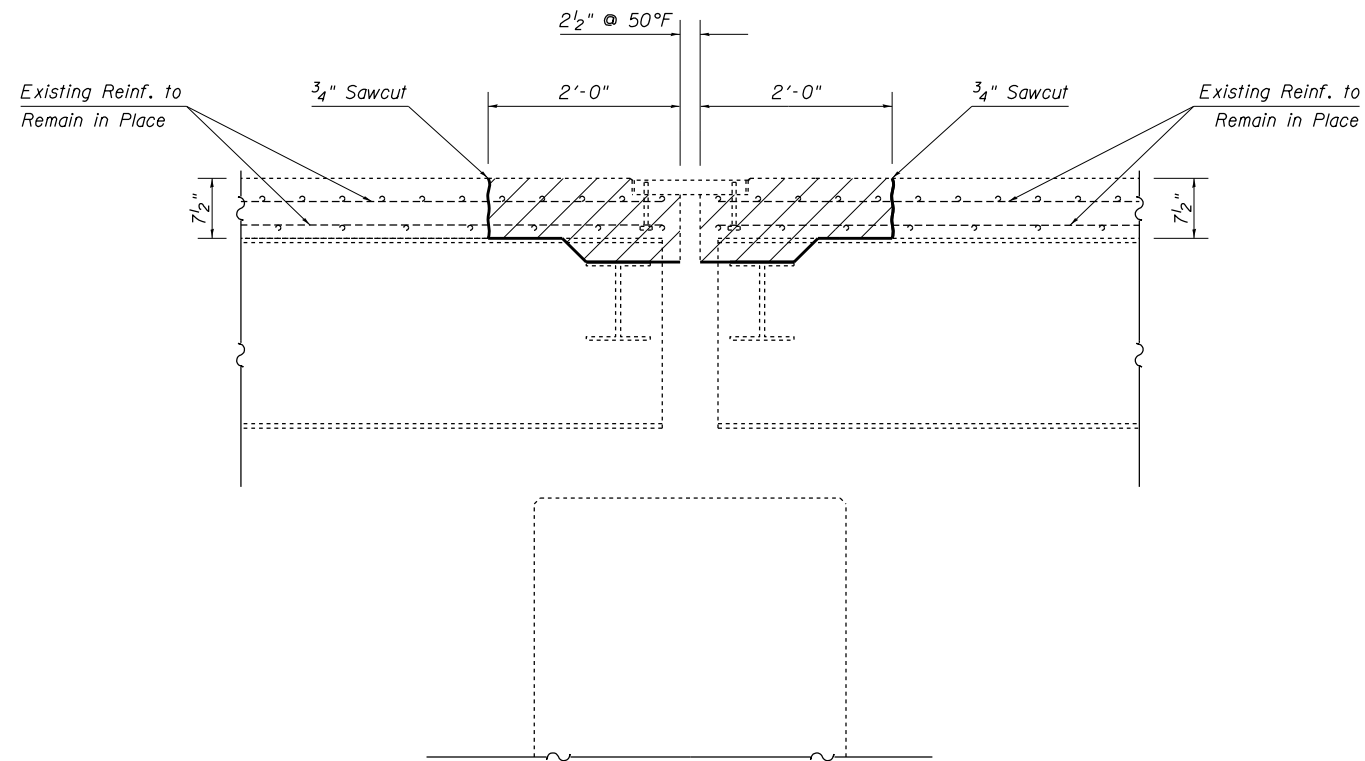
EXISTING PARTIAL PLAN
(PIERS 3, 7, 11, & 15)



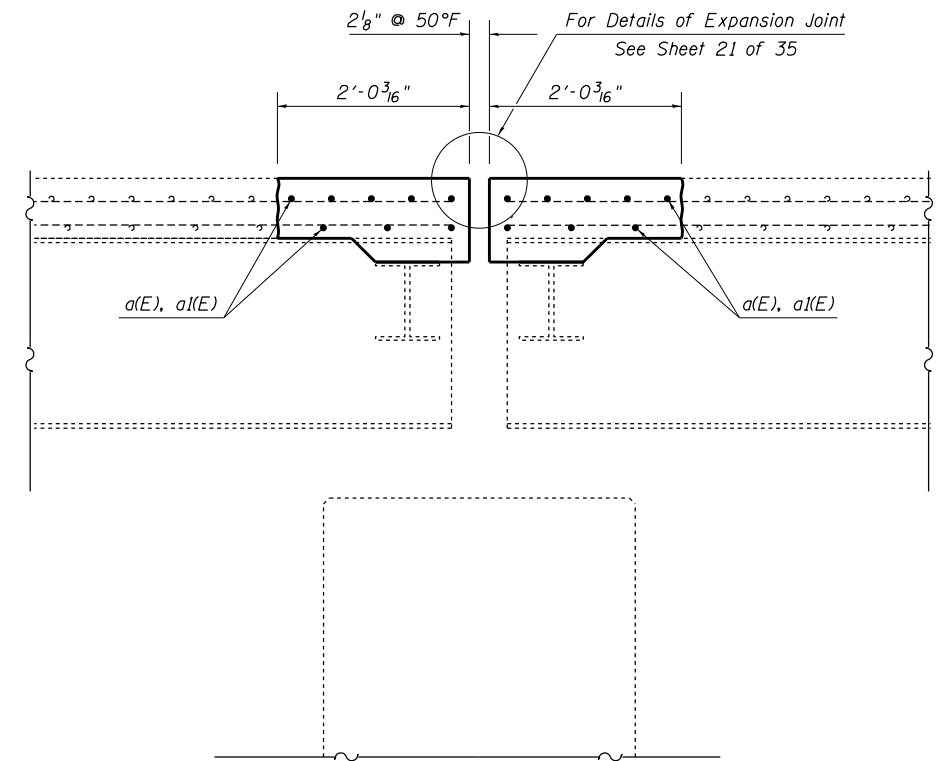
EXISTING PARTIAL PLAN
(PIERS 3, 7, 11, & 15)

Hatching Indicates Concrete Removal.

- Existing Reinforcement
- Proposed Reinforcement



SECTION C-C
 (Dimensions at Rt. L's to end of deck)
 (PIERS 3, 7, 11, & 15)



SECTION D-D
 (Dimensions at Rt. L's to end of deck)
 (PIERS 3, 7, 11, & 15)

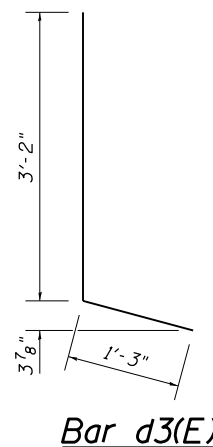
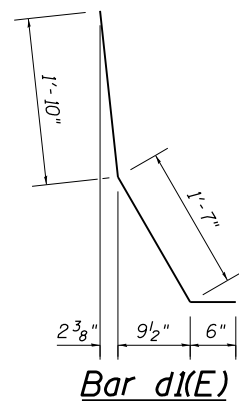
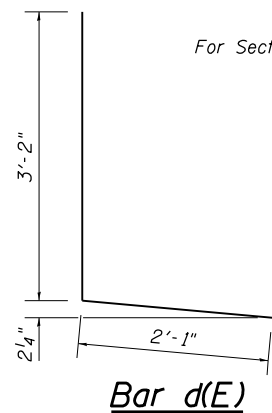
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	PLOT DATE = 12/6/2013	DATE - 08/13/2013	REVISED -

**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

**EXPANSION JOINT REPLACEMENT DETAILS - PIERS 3, 7, 11 AND 15
 SN. 096-0010**

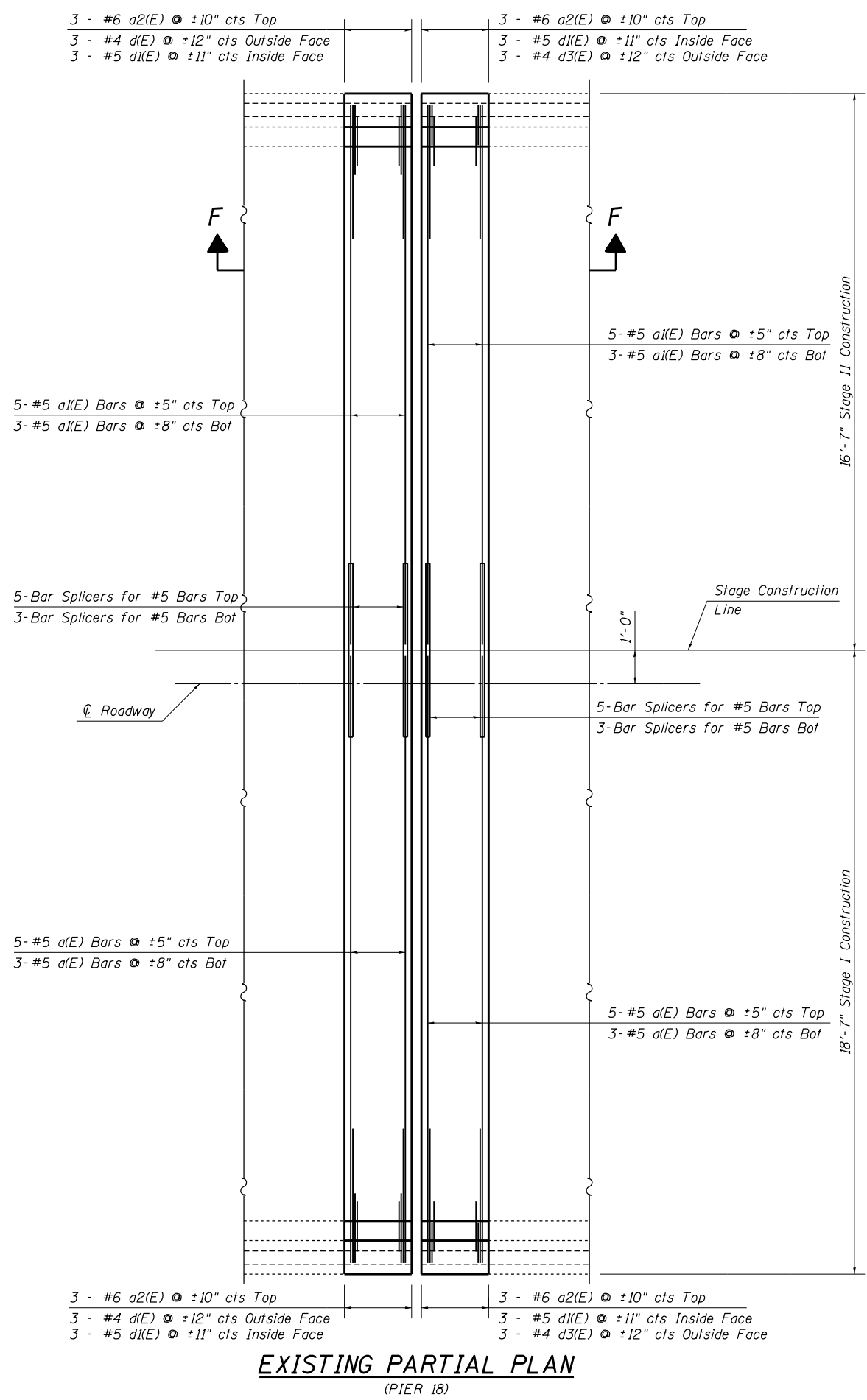
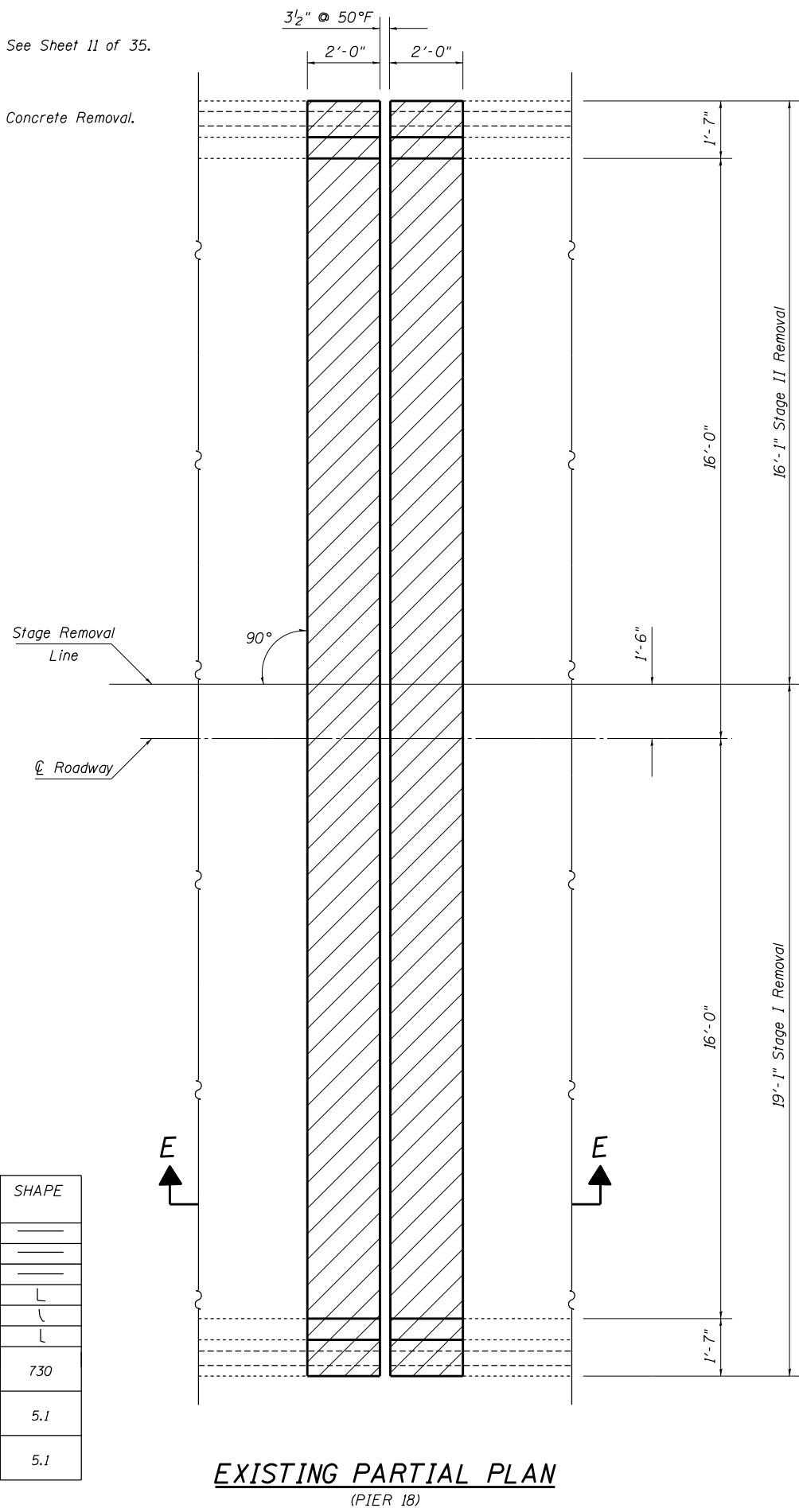
SCALE: N/A SHEET 9 OF 35 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
823	07 BRIDGE REPAIRS 2014-3	WAYNE	60	30
ILLINOIS FED. AID PROJECT			CONTRACT NO. 74618	



BILL OF MATERIAL

BAR	NUMBER OF BARS		TOTAL	SIZE	LENGTH	SHAPE
	STAGE I	STAGE II				
a(E)	16		16	#5	18'-1"	—
a1(E)		16	16	#5	16'-1"	—
a2(E)	6	6	12	#6	4'-0"	—
d(E)	3	3	6	#4	5'-3"	L
d1(E)	6	6	12	#5	3'-11"	L
d3(E)	3	3	6	#4	4'-5"	L
REINFORCEMENT BARS (EPOXY COATED)					POUND	730
CONCRETE REMOVAL					CU YD	5.1
CONCRETE SUPERSTRUCTURE					CU YD	5.1



FILE NAME =	USER NAME = steffenmk	DESIGNED - MJM	REVISED -
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	PLOT DATE = 12/6/2013	DATE - 08/13/2013	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

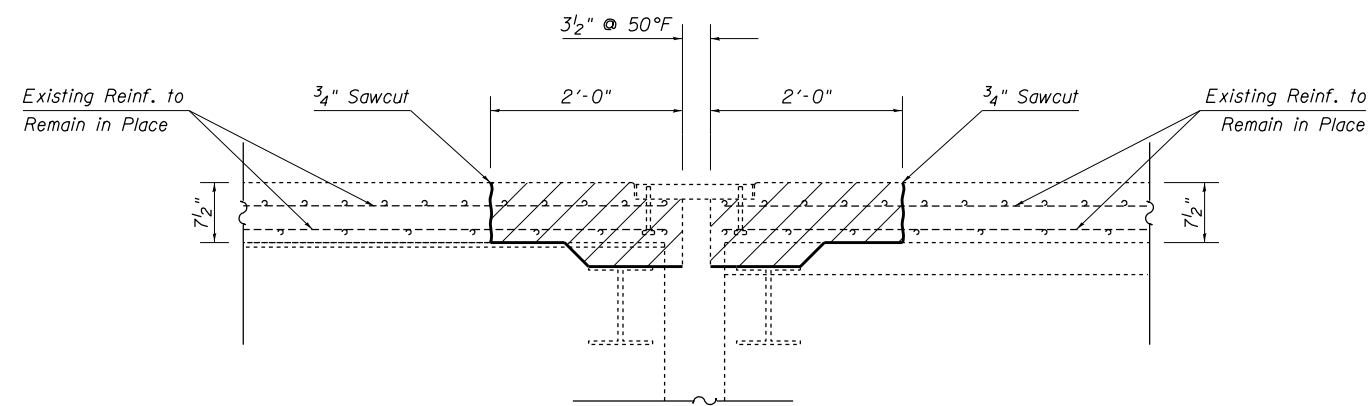
EXPANSION JOINT REPLACEMENT DETAILS - PIER 18
SN. 096-0010

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
823	07 BRIDGE REPAIRS 2014-3	WAYNE	60	31
CONTRACT NO. 74618			ILLINOIS FED. AID PROJECT	

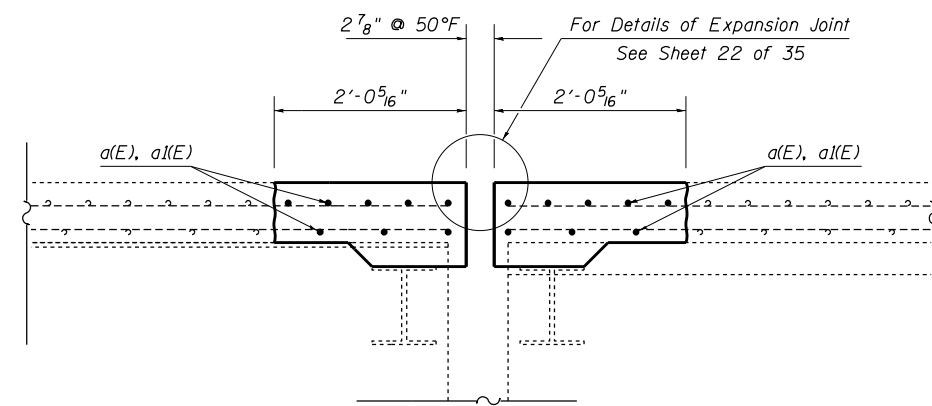
SCALE: N/A SHEET 10 OF 35 SHEETS STA. TO STA.

Hatching Indicates Concrete Removal.

- Existing Reinforcement
- Proposed Reinforcement



SECTION E-E
 (Dimensions at Rt. L's to end of deck)
 (PIER 18)



SECTION F-F
 (Dimensions at Rt. L's to end of deck)
 (PIER 18)

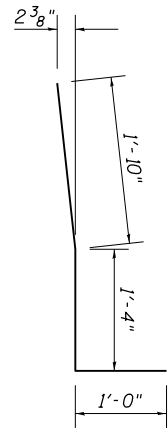
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	PLOT DATE = 12/6/2013	DATE - 08/13/2013	REVISED -

**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

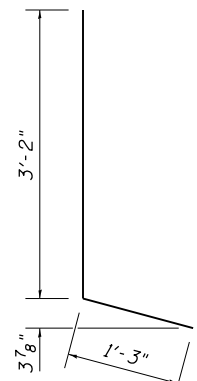
**EXPANSION JOINT REPLACEMENT DETAILS
 SN. 096-0010 - PIER 18**

SCALE: N/A SHEET 11 OF 35 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
823	07 BRIDGE REPAIRS 2014-3	WAYNE	60	32
ILLINOIS FED. AID PROJECT			CONTRACT NO.	74618



Bar d2(E)



Bar d3(E)

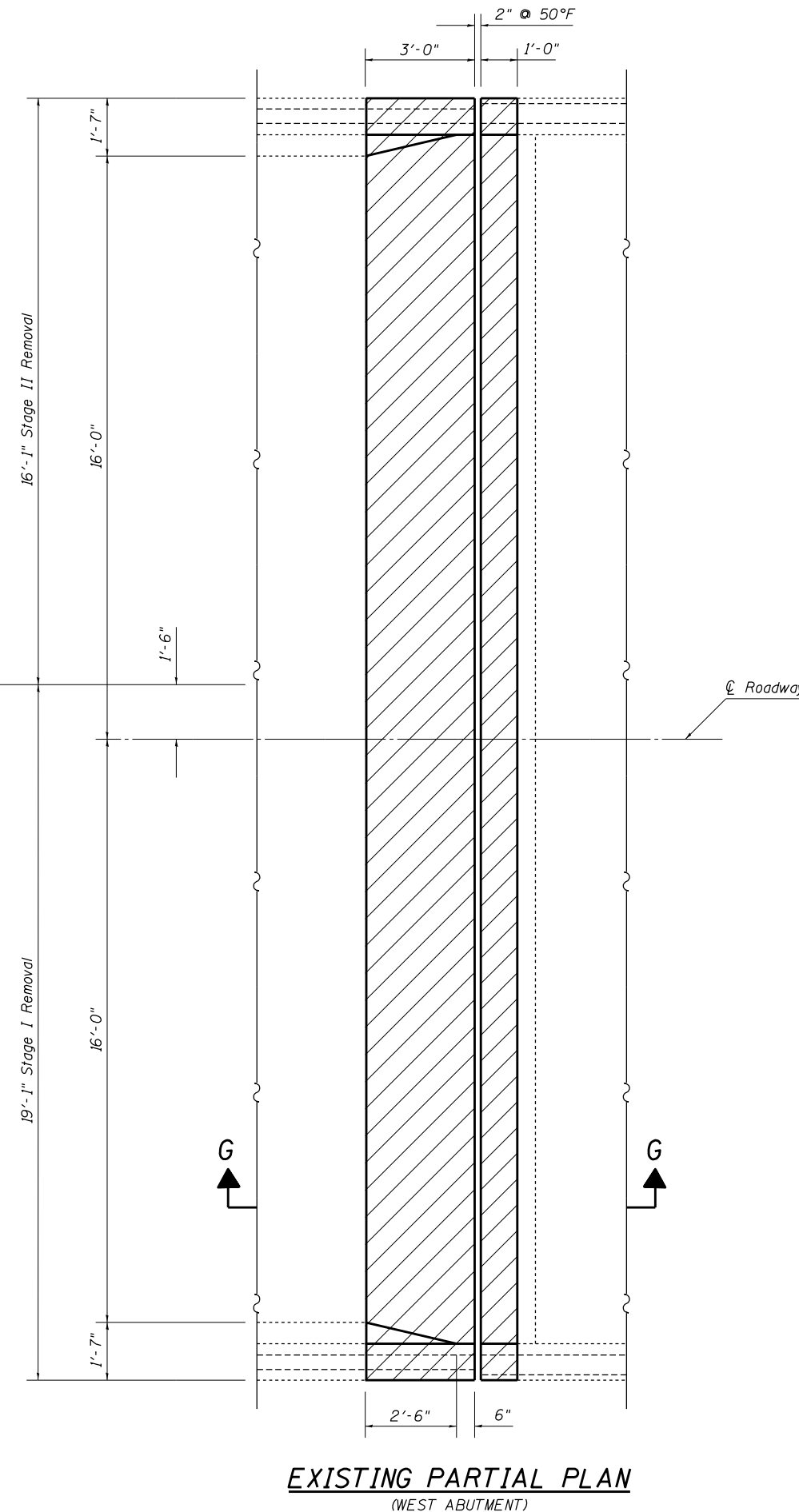
Hatching indicates Concrete Removal.

Stage Removal Line

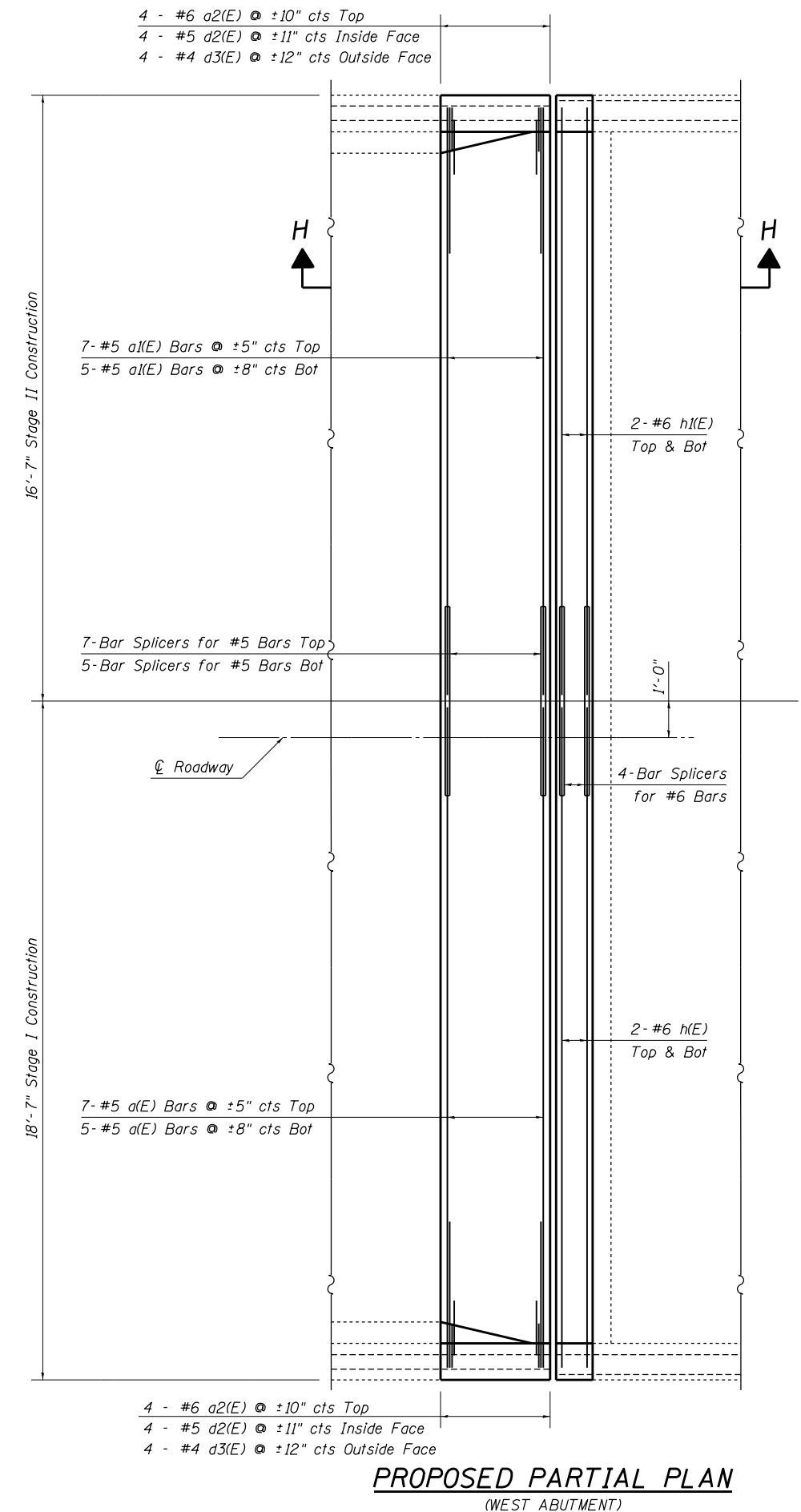
For Section G-G and H-H, See Sheet 13 of 35.

BILL OF MATERIAL

BAR	NUMBER OF BARS		TOTAL	SIZE	LENGTH	SHAPE
	STAGE I	STAGE II				
a(E)	12		12	#5	18'-1"	—
a1(E)		12	12	#5	16'-1"	—
a2(E)	4	4	8	#6	4'-0"	—
d2(E)	4	4	8	#5	4'-2"	L
d3(E)	4	4	8	#4	4'-5"	L
h(E)	4		4	#6	18'-3"	—
h1(E)		4	4	#6	16'-3"	—
REINFORCEMENT BARS (EPOXY COATED)					POUND	750
CONCRETE REMOVAL					CU YD	5.3
CONCRETE SUPERSTRUCTURE					CU YD	5.3



EXISTING PARTIAL PLAN
(WEST ABUTMENT)



PROPOSED PARTIAL PLAN
(WEST ABUTMENT)

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

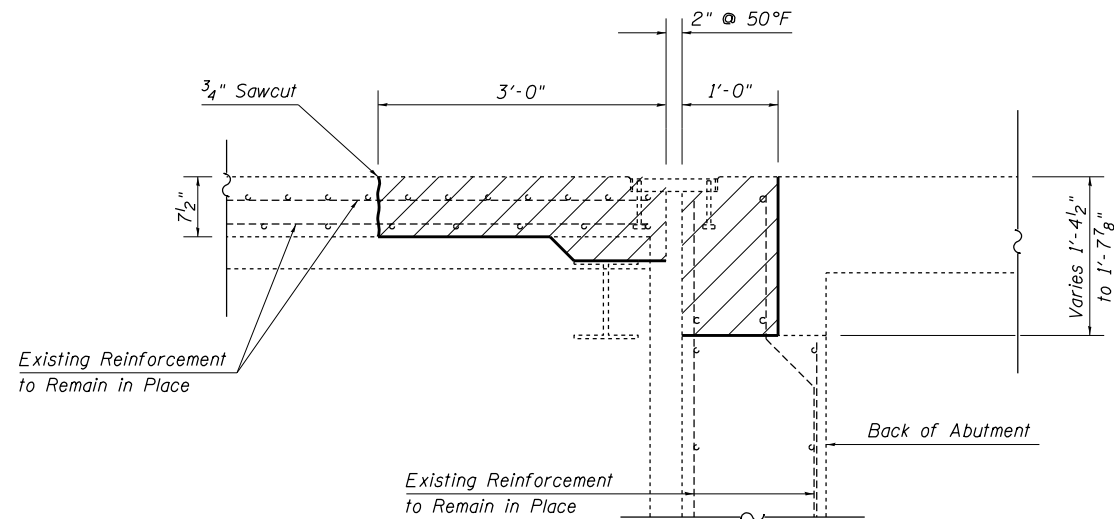
EXPANSION JOINT REPLACEMENT DETAILS - WEST ABUTMENT
SN. 096-0010

SCALE: N/A SHEET 12 OF 35 SHEETS STA. TO STA.

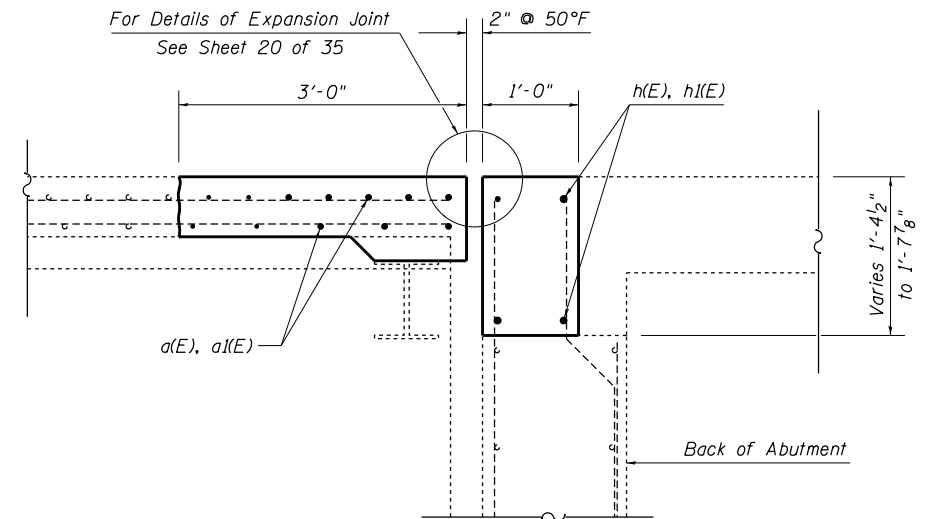
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
823	07 BRIDGE REPAIRS 2014-3	WAYNE	60	33
CONTRACT NO. 74618			ILLINOIS FED. AID PROJECT	

Hatching Indicates Concrete Removal.

- Existing Reinforcement
- Proposed Reinforcement



SECTION G-G
(Dimensions at Rt. L's to end of deck)
(WEST ABUTMENT)



SECTION H-H
(Dimensions at Rt. L's to end of deck)
(WEST ABUTMENT)

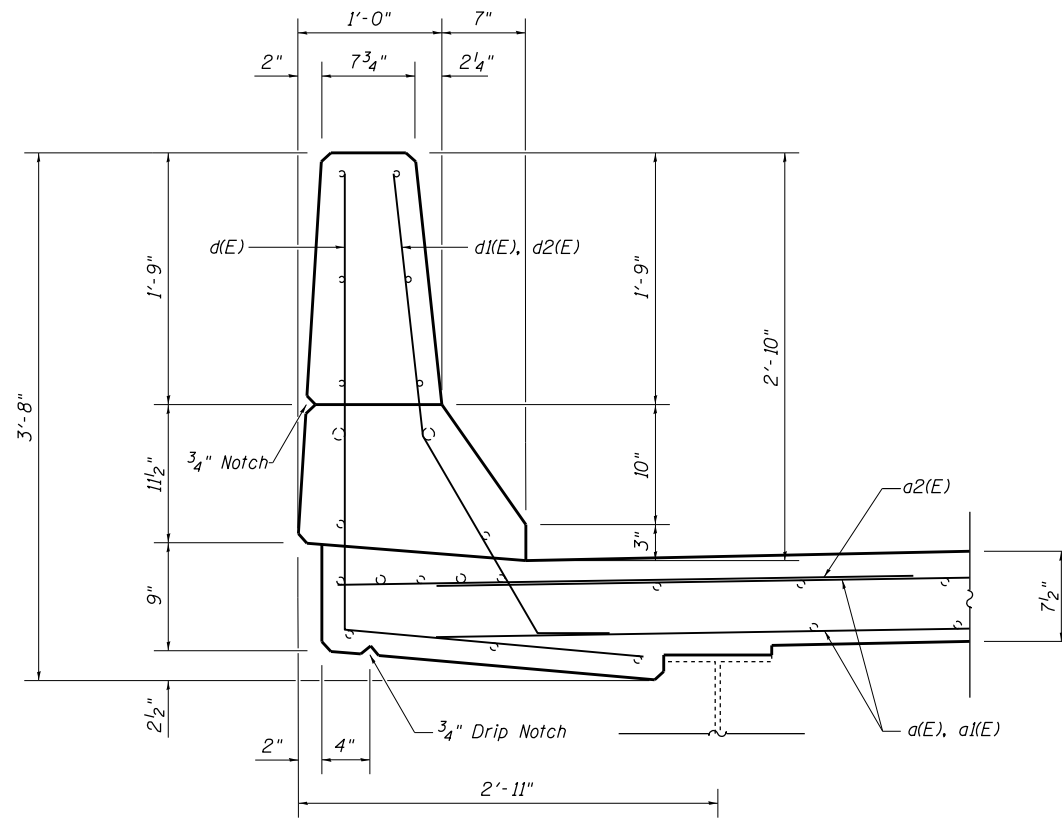
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	PLOT DATE = 12/6/2013	DATE - 08/13/2013	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

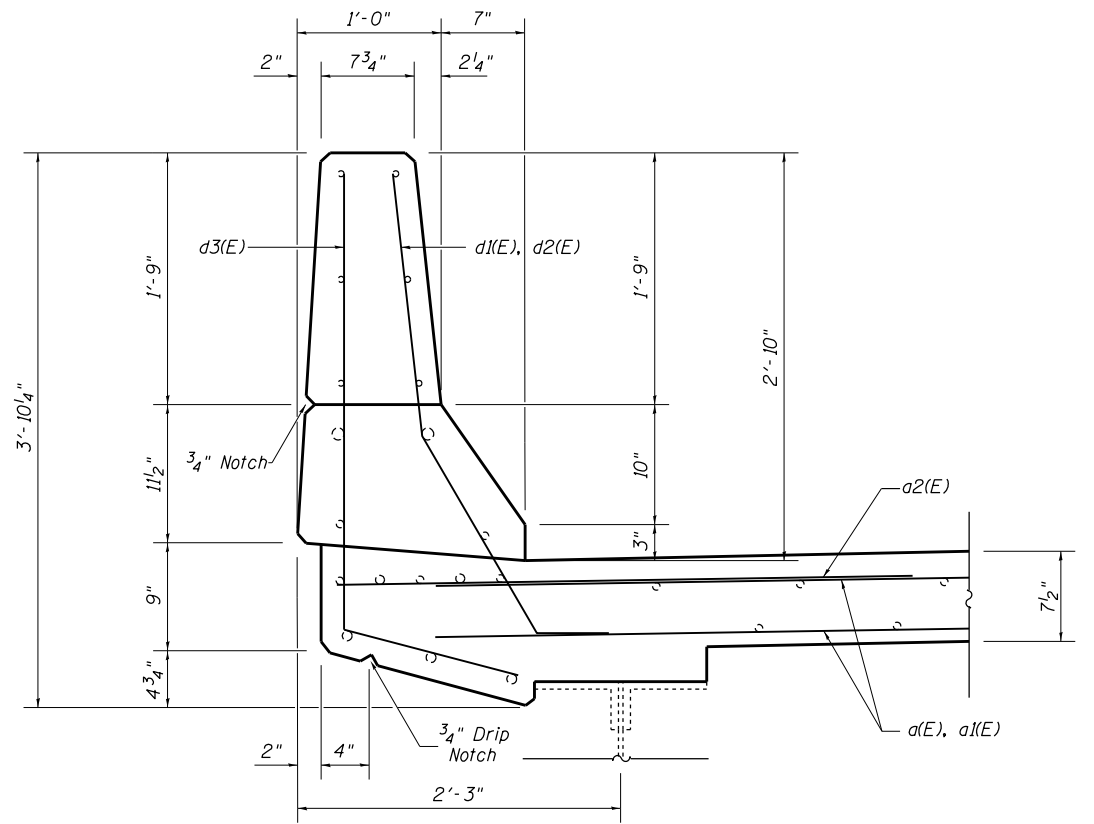
**EXPANSION JOINT REPLACEMENT DETAILS - WEST ABUTMENT
SN. 096-0010**

SCALE: N/A SHEET 13 OF 35 SHEETS STA. TO STA.

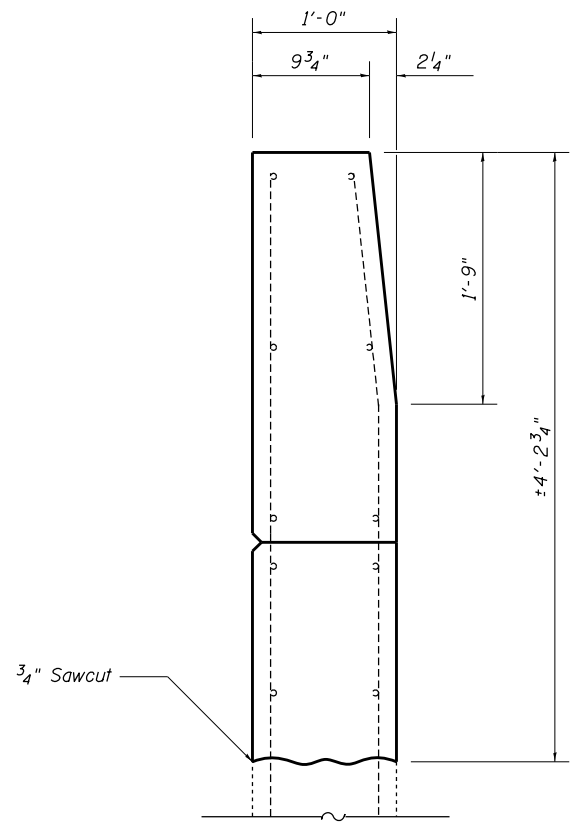
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
823	07 BRIDGE REPAIRS 2014-3	WAYNE	60	34
CONTRACT NO. 74618			ILLINOIS FED. AID PROJECT	



SECTION THRU PARAPET
(SPANS 1 THRU 18)



SECTION THRU PARAPET
(SPANS 19 THRU 21)



**TYPICAL WINGWALL
REMOVAL & REPLACEMENT**

FILE NAME =	USER NAME = steffenmk	DESIGNED - MJM	REVISED -
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	PLOT DATE = 12/6/2013	DATE - 08/13/2013	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**EXPANSION JOINT REPLACEMENT DETAILS
SN. 096-0010**

SCALE: N/A SHEET 14 OF 35 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
823	07 BRIDGE REPAIRS 2014-3	WAYNE	60	35
CONTRACT NO.			74618	
ILLINOIS FED. AID PROJECT				

BEAM REACTIONS

R _P	(K)	19.0
R _L	(K)	36.1
Imp.	(K)	10.8
R (Total)	(K)	65.9

Notes:

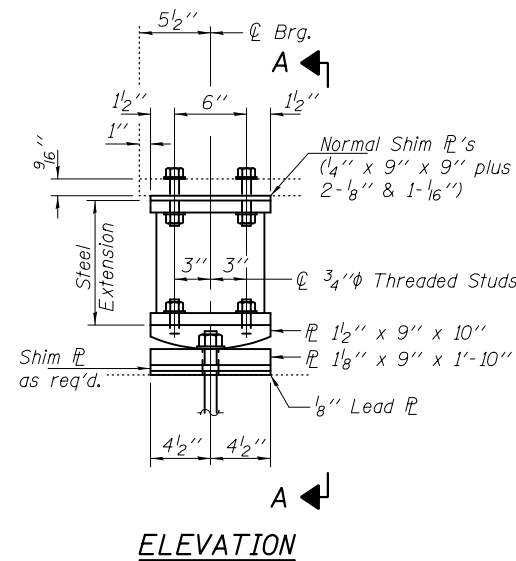
Diaphragm removal and reinstallation may be required to facilitate drilling holes. Cost included with Furnishing and Erecting Structural Steel.

New steel extensions, shim plates and connection bolts are included with Furnishing and Erecting Structural Steel.

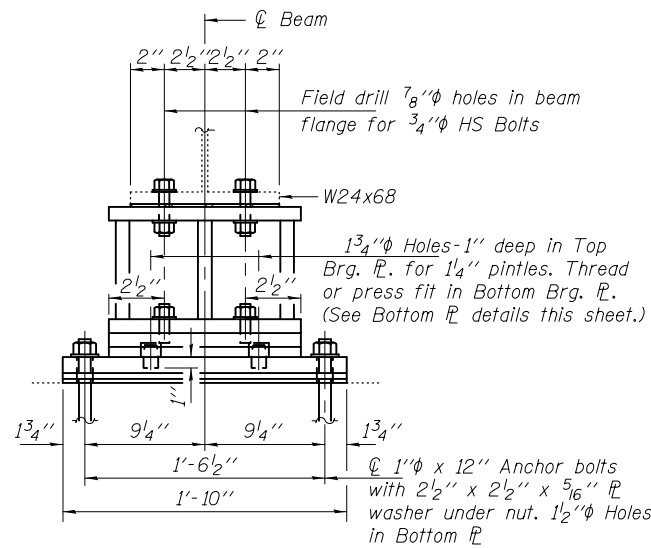
Prior to ordering any material, the Contractor shall verify in the field all bearing height and shim thickness dimensions. Min. jack capacity = 32 Tons.

Anchor bolts shall be ASTM F1554 all-thread (or an Engineer-approved alternate material) of the grade(s) and diameter(s) specified. ASTM A307 Grade C anchor bolts may be used in lieu of ASTM F1554 Grade 36 (F_y=36ksi). The corresponding specified grade of AASHTO M314 anchor bolts may be used in lieu of ASTM F1554.

Drilled and set anchor bolts shall be installed according to Article 521.06 of the Standard Specifications.

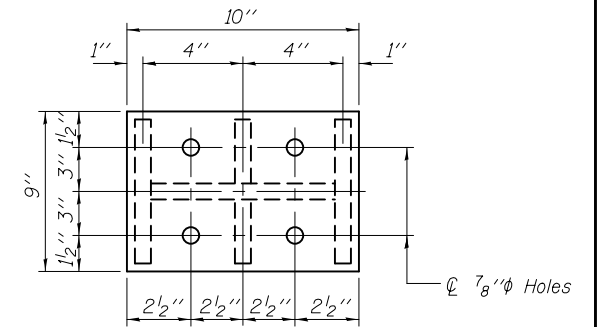


FIXED BEARING

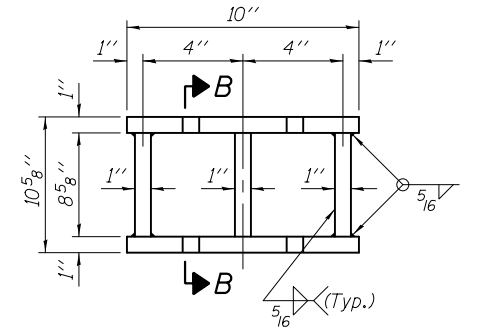


SECTION A-A

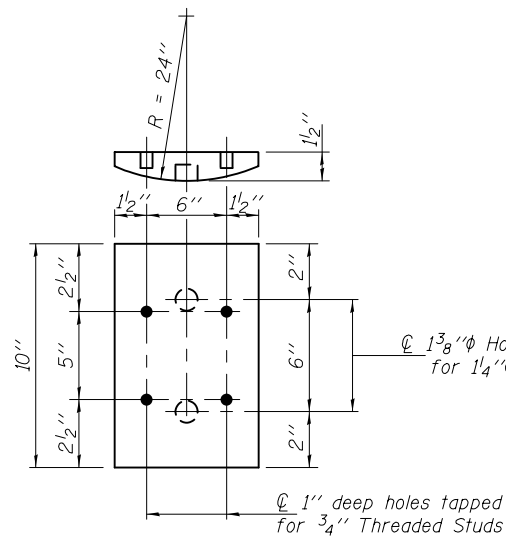
SECTION B-B



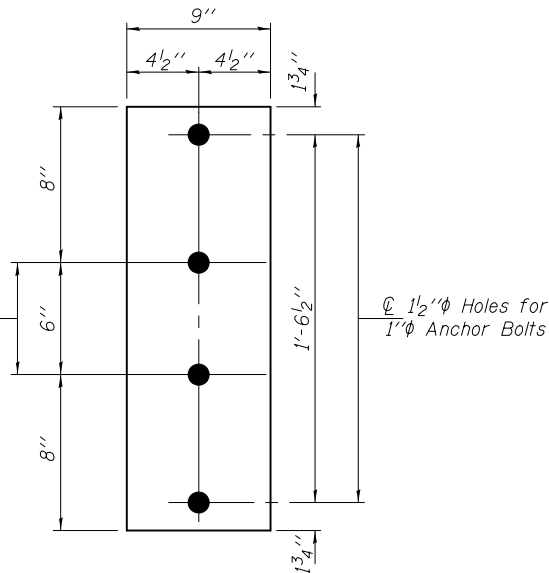
PLAN TOP AND BOTTOM PLATE



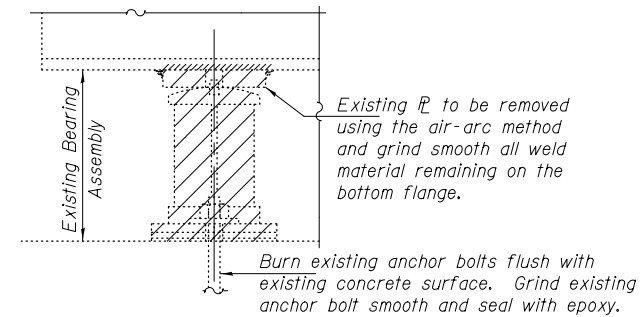
STEEL EXTENSION DETAIL



PLAN - TOP PLATE
P 1 1/2" x 9" x 10"

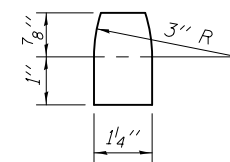


PLAN - BOTTOM PLATE
P 1 1/8" x 9" x 1'-10"



EXISTING BEARING REMOVAL DETAIL

Cost included with Jack and Remove Existing Bearings.



BILL OF MATERIAL

Item	Unit	Total
Jack and Remove Existing Bearings	Each	5
Furnishing and Erecting Structural Steel	Pound	1290
Anchor Bolts 1" ∅	Each	10

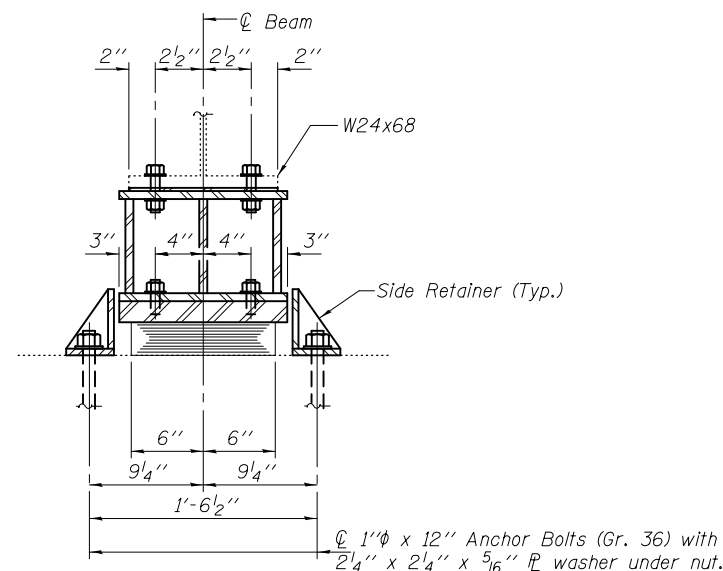
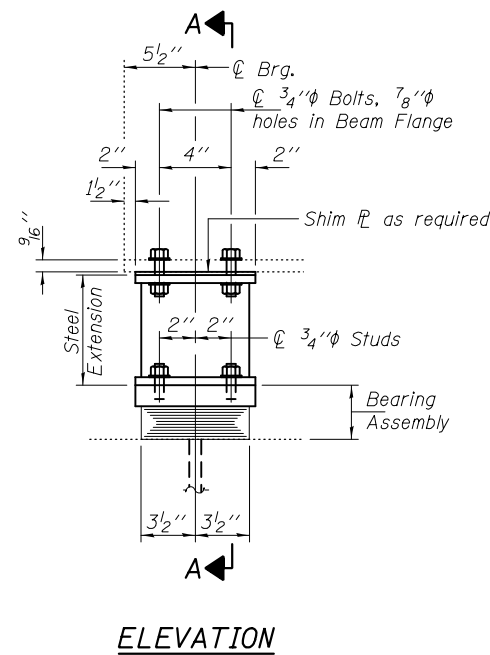
DESIGNED <i>DAB</i>	EXAMINED <i>Timothy A. [Signature]</i>	DATE <i>JANUARY 22, 2014</i>
CHECKED <i>VHV</i>	ACTING ENGINEER OF STRUCTURAL SERVICES	
DRAWN <i>baliva</i>	PASSED <i>Carl [Signature]</i>	
CHECKED <i>DAB VHV</i>	ACTING ENGINEER OF BRIDGES AND STRUCTURES	

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

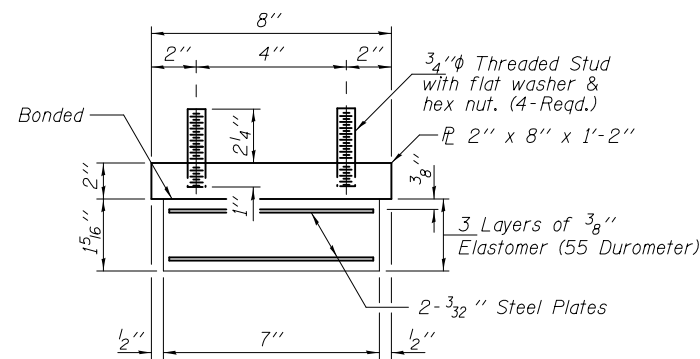
**BEARING REPLACEMENT DETAILS
E. ABUTMENT
SN 096-0010**

SHEET NO. 15 OF 35 SHEETS

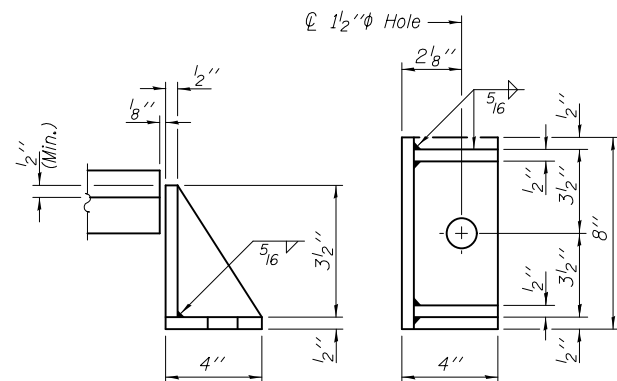
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
823	D7 BRIDGE REPAIRS 2014-3	WAYNE	60	36
CONTRACT NO. 74618			ILLINOIS FED. AID PROJECT	



TYPE I ELASTOMERIC EXP. BRG.



Note:
Shim plates shall not be placed under Bearing Assembly.

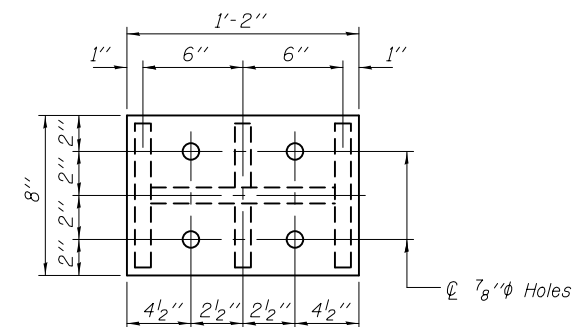
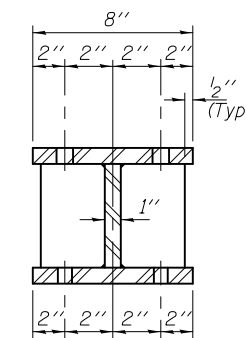


Equivalent rolled angle with stiffeners will be allowed in lieu of welded plates.

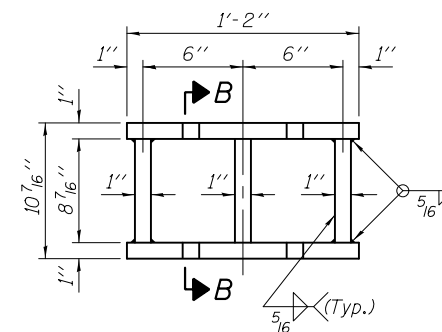
BEAM REACTIONS

RP	(K)	19.0
Rt	(K)	36.1
Imp.	(K)	10.8
R (Total)	(K)	65.9

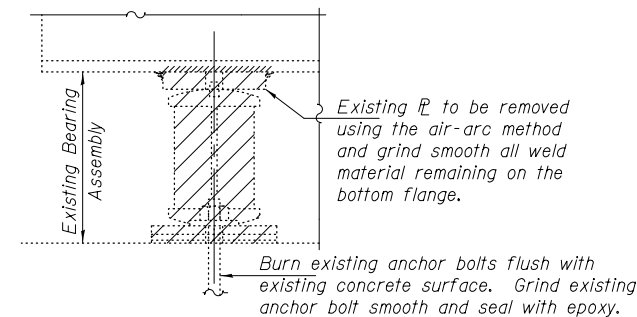
Notes:
Diaphragm removal and reinstallation may be required to facilitate drilling holes. Cost included with Furnishing and Erecting Structural Steel.
New steel extensions, shim plates and connection bolts are included with Furnishing and Erecting Structural Steel.
Prior to ordering any material, the Contractor shall verify in the field all bearing height and shim thickness dimensions. Min. jack capacity = 32 Tons.
Anchor bolts shall be ASTM F1554 all-thread (or an Engineer-approved alternate material) of the grade(s) and diameter(s) specified. ASTM A307 Grade C anchor bolts may be used in lieu of ASTM F1554 Grade 36 (Fy=36ksi). The corresponding specified grade of AASHTO M314 anchor bolts may be used in lieu of ASTM F1554.
Drilled and set anchor bolts shall be installed according to Article 521.06 of the Standard Specifications.



PLAN TOP PLATE

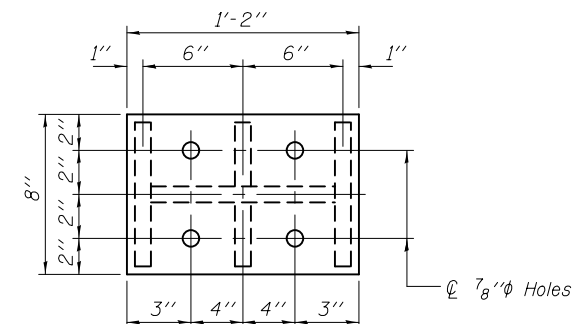


STEEL EXTENSION DETAIL



EXISTING BEARING REMOVAL DETAIL

Cost included with Jack and Remove Existing Bearings.



PLAN BOTTOM PLATE

BILL OF MATERIAL

Item	Unit	Total
Elastomeric Bearing Assembly Type I	Each	5
Jack and Remove Existing Bearings	Each	5
Furnishing and Erecting Structural Steel	Pound	700
Anchor Bolts 1"φ	Each	10

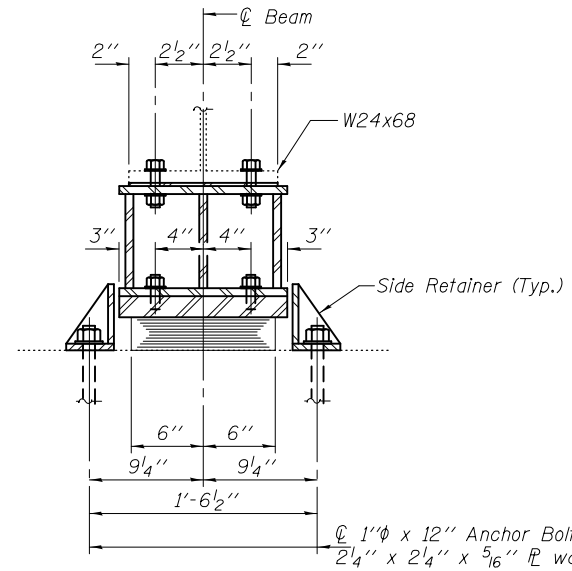
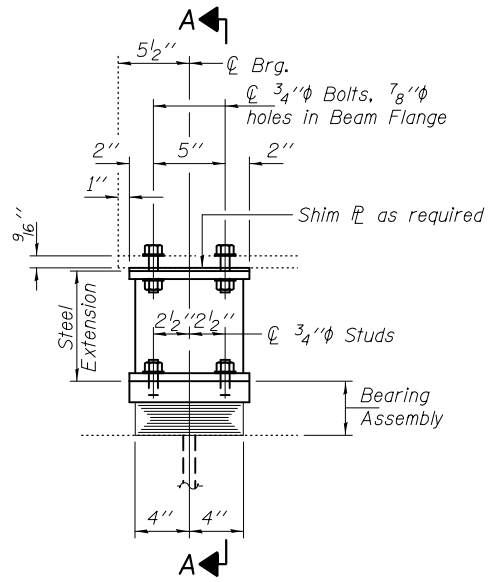
TYI/REPS 12-03-2008

DESIGNED DAB	EXAMINED	DATE JANUARY 22, 2014
CHECKED VHV	<i>Timothy A. ...</i>	
DRAWN baliva	ACTING ENGINEER OF STRUCTURAL SERVICES	
CHECKED DAB VHV	PASSED	
	<i>Carl ...</i>	
	ACTING ENGINEER OF BRIDGES AND STRUCTURES	

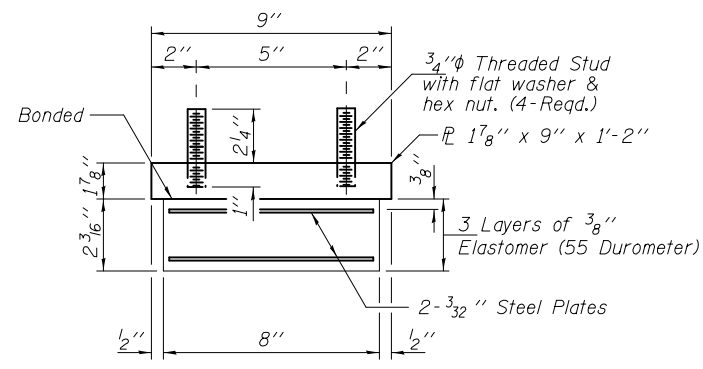
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

BEARING REPLACEMENT DETAILS
SPAN 18, PIER 18
SN 096-0010
SHEET NO. 16 OF 35 SHEETS

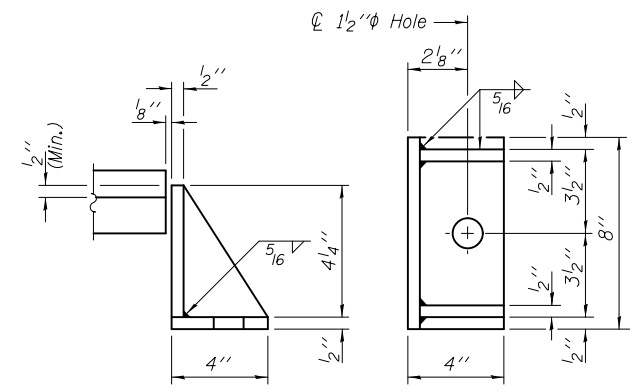
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
823	D7 BRIDGE REPAIRS 2014-3	WAYNE	60	37
			CONTRACT NO. 74618	
ILLINOIS FED. AID PROJECT				



TYPE I ELASTOMERIC EXP. BRG.



Note: Shim plates shall not be placed under Bearing Assembly.

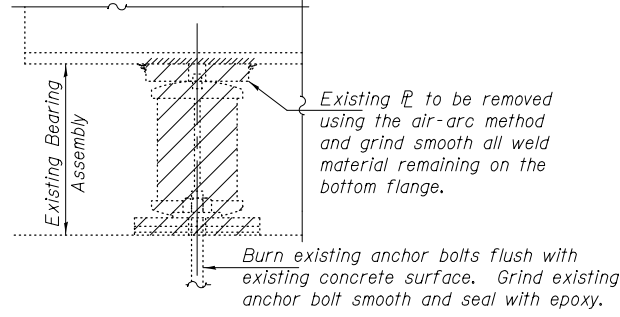
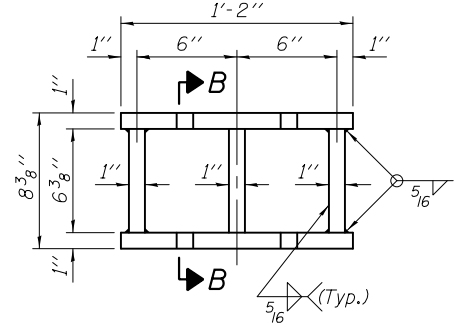
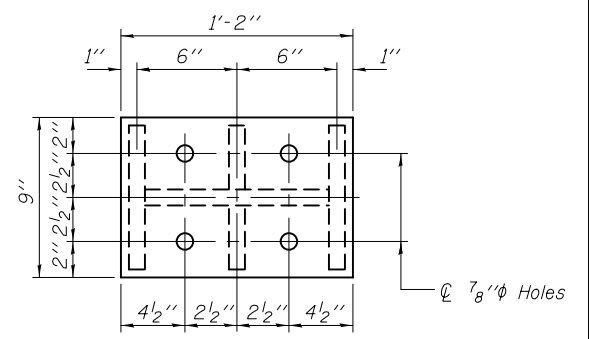
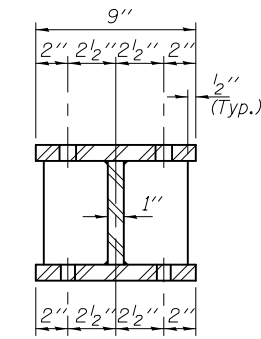


Equivalent rolled angle with stiffeners will be allowed in lieu of welded plates.

BEAM REACTIONS

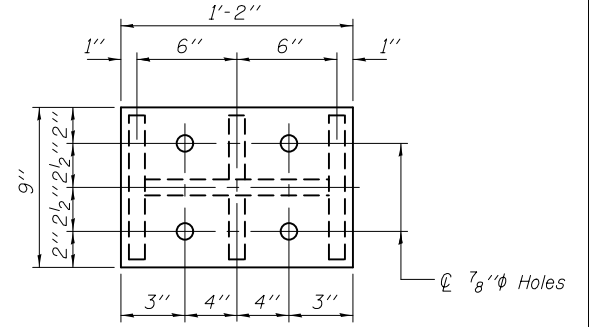
RP	(K)	19.0
Rt	(K)	36.1
Imp.	(K)	10.8
R (Total)	(K)	65.9

Notes:
 Diaphragm removal and reinstallation may be required to facilitate drilling holes. Cost included with Furnishing and Erecting Structural Steel.
 New steel extensions, shim plates and connection bolts are included with Furnishing and Erecting Structural Steel.
 Prior to ordering any material, the Contractor shall verify in the field all bearing height and shim thickness dimensions. Min. jack capacity = 32 Tons.
 Anchor bolts shall be ASTM F1554 all-thread (or an Engineer-approved alternate material) of the grade(s) and diameter(s) specified. ASTM A307 Grade C anchor bolts may be used in lieu of ASTM F1554 Grade 36 (Fy=36ksi). The corresponding specified grade of AASHTO M314 anchor bolts may be used in lieu of ASTM F1554.
 Drilled and set anchor bolts shall be installed according to Article 521.06 of the Standard Specifications.
 Side retainers shall be included in the cost of Elastomeric Bearing Assembly, Type I.



EXISTING BEARING REMOVAL DETAIL

Cost included with Jack and Remove Existing Bearings.



BILL OF MATERIAL

Item	Unit	Total
Elastomeric Bearing Assembly Type I	Each	40
Jack and Remove Existing Bearings	Each	40
Furnishing and Erecting Structural Steel	Pound	5400
Anchor Bolts 1"φ	Each	80

TYI/REPS 12-03-2008

DESIGNED DAB	EXAMINED	DATE JANUARY 22, 2014
CHECKED VHV	 ACTING ENGINEER OF STRUCTURAL SERVICES	
DRAWN baliva	PASSED	 ACTING ENGINEER OF BRIDGES AND STRUCTURES
CHECKED DAB VHV		

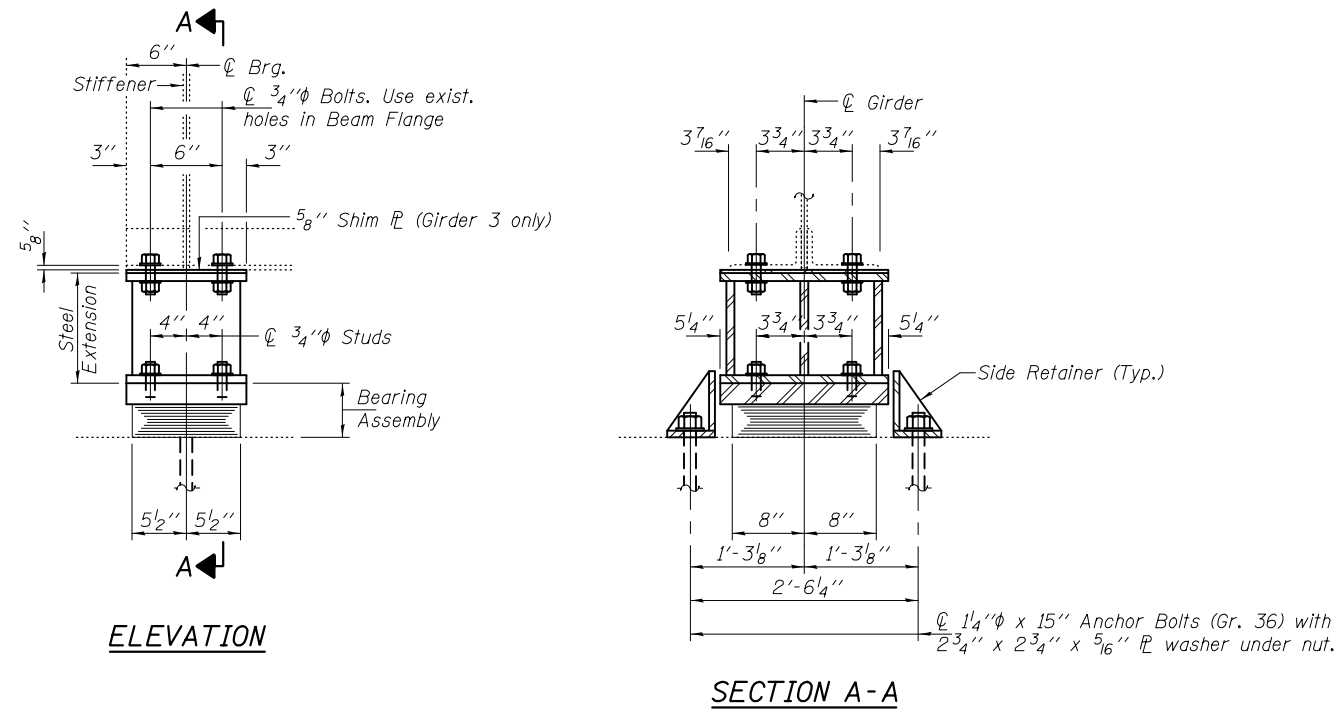
STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

BEARING REPLACEMENT DETAILS
 PIER 3, PIER 7, PIER 11 & PIER 15
 SN 096-0010

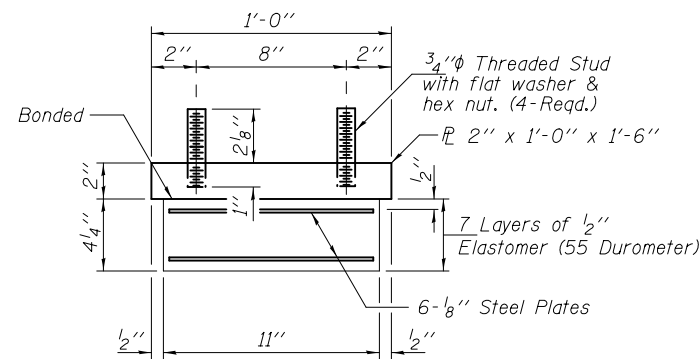
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
823	D7 BRIDGE REPAIRS 2014-3	WAYNE	60	38
			CONTRACT NO. 74618	

SHEET NO. 17 OF 35 SHEETS

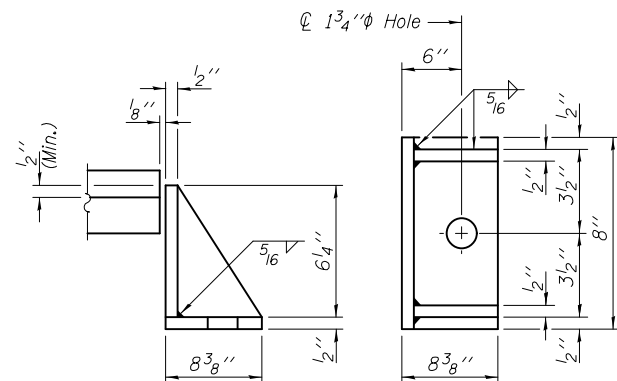
ILLINOIS FED. AID PROJECT



TYPE I ELASTOMERIC EXP. BRG.



Note:
Shim plates shall not be placed under Bearing Assembly.

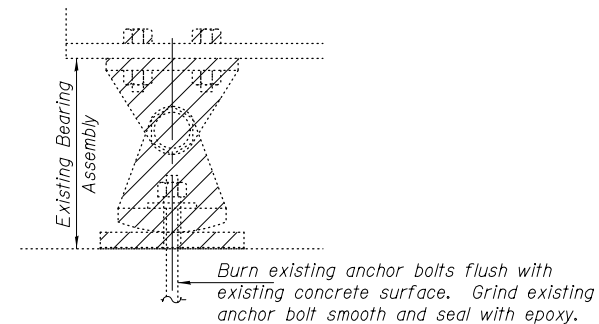
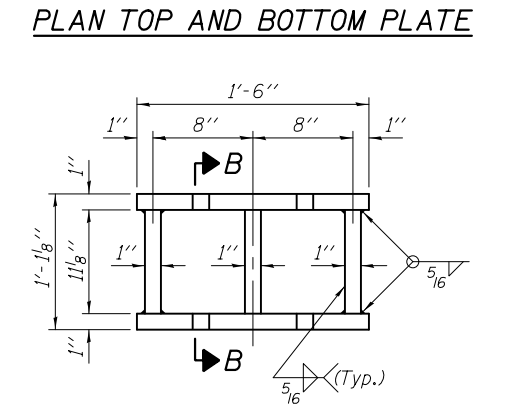
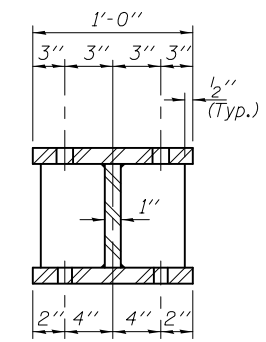
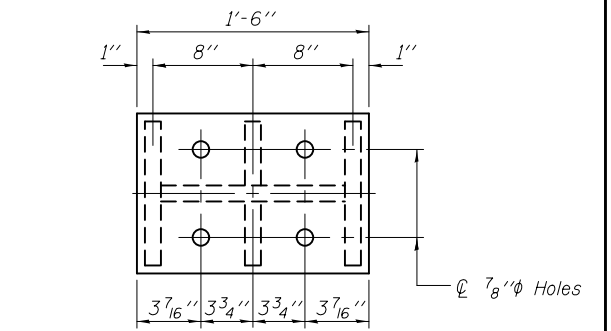


Equivalent rolled angle with stiffeners will be allowed in lieu of welded plates.

BEAM REACTIONS

RP	(K)	69.4
R _L	(K)	45.8
Imp.	(K)	9.1
R (Total)	(K)	124.3

Notes:
Diaphragm removal and reinstallation may be required to facilitate drilling holes. Cost included with Furnishing and Erecting Structural Steel.
New steel extensions, shim plates and connection bolts are included with Furnishing and Erecting Structural Steel.
Prior to ordering any material, the Contractor shall verify in the field all bearing height and shim thickness dimensions. Min. jack capacity = 73 Tons.
Anchor bolts shall be ASTM F1554 all-thread (or an Engineer-approved alternate material) of the grade(s) and diameter(s) specified. ASTM A307 Grade C anchor bolts may be used in lieu of ASTM F1554 Grade 36 (Fy=36ksi). The corresponding specified grade of AASHTO M314 anchor bolts may be used in lieu of ASTM F1554.
Drilled and set anchor bolts shall be installed according to Article 521.06 of the Standard Specifications.
Side retainers shall be included in the cost of Elastomeric Bearing Assembly, Type I.



Cost included with Jack and Remove Existing Bearings.

BILL OF MATERIAL

Item	Unit	Total
Elastomeric Bearing Assembly Type I	Each	5
Jack and Remove Existing Bearings	Each	5
Furnishing and Erecting Structural Steel	Pound	1360
Anchor Bolts 1 1/4" φ	Each	10

TYI/REPS 12-03-2008

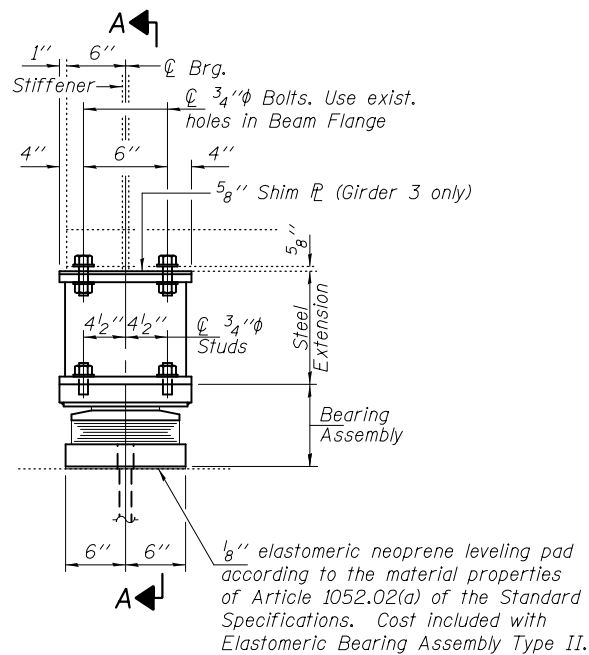
DESIGNED DAB	EXAMINED	DATE JANUARY 22, 2014
CHECKED VHV	ACTING ENGINEER OF STRUCTURAL SERVICES	
DRAWN baliva	PASSED	ACTING ENGINEER OF BRIDGES AND STRUCTURES
CHECKED DAB VHV		

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

BEARING REPLACEMENT DETAILS
W. ABUTMENT
SN 096-0010

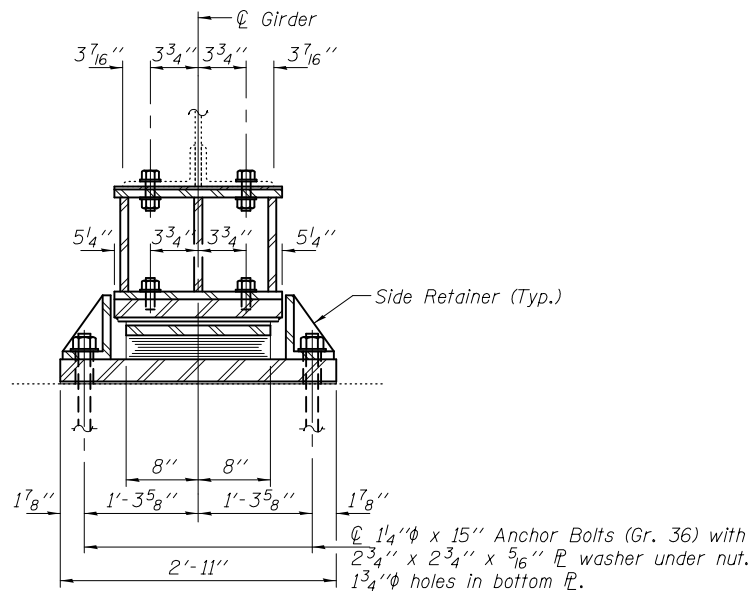
SHEET NO. 18 OF 35 SHEETS

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
823	D7 BRIDGE REPAIRS 2014-3	WAYNE	60	39
			CONTRACT NO. 74618	
ILLINOIS FED. AID PROJECT				



ELEVATION

TYPE II TFE ELASTOMERIC EXP. BRG.

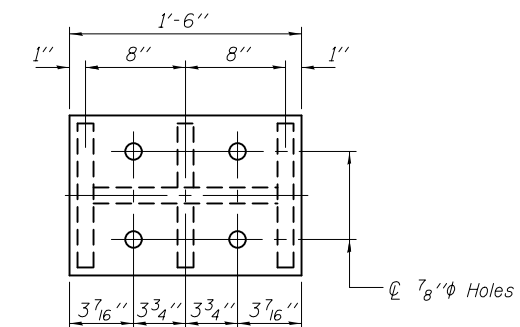


SECTION A-A

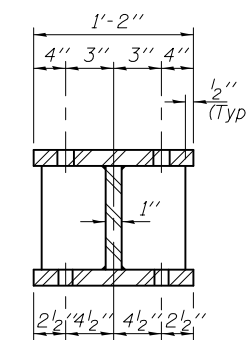
BEAM REACTIONS

R _P	(K)	69.4
R _L	(K)	45.8
Imp.	(K)	9.1
R (Total)	(K)	124.3

Notes:
 Diaphragm removal and reinstallation may be required to facilitate drilling holes. Cost included with Furnishing and Erecting Structural Steel.
 New steel extensions, shim plates and connection bolts are included with Furnishing and Erecting Structural Steel.
 Prior to ordering any material, the Contractor shall verify in the field all bearing height and shim thickness dimensions. Min. jack capacity = 73 Tons.
 Anchor bolts shall be ASTM F1554 all-thread (or an Engineer-approved alternate material) of the grade(s) and diameter(s) specified. ASTM A307 Grade C anchor bolts may be used in lieu of ASTM F1554 Grade 36 (Fy=36ksi). The corresponding specified grade of AASHTO M314 anchor bolts may be used in lieu of ASTM F1554.
 Anchor bolts for Type II bearings shall be placed in holes drilled through the bottom bearing plate after members are in place. Side retainers shall be placed after bolts are installed.
 Drilled and set anchor bolts shall be installed according to Article 521.06 of the Standard Specifications.
 Side retainers shall be included in the cost of Elastomeric Bearing Assembly, Type II.
 The 1/8" PTFE sheet shall be bonded directly to the top steel plate with a two-component, medium viscosity epoxy resin, conforming to the requirements of the Federal Specification MMM-A-134, Type I. The bond agent shall be applied on the full area of the contact surfaces.
 Bonding of 1/8" PTFE sheet during vulcanizing process will be permitted provided the process and method of adjusting assembly height is approved by the Engineer.

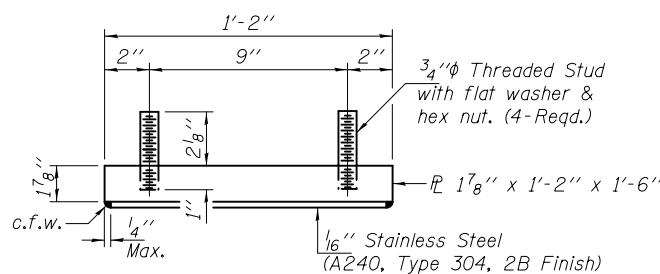


PLAN TOP AND BOTTOM PLATE

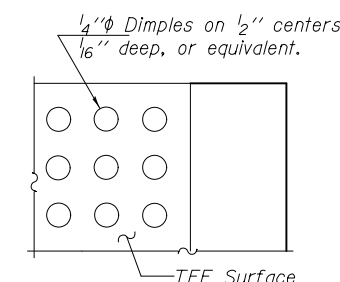


SECTION B-B

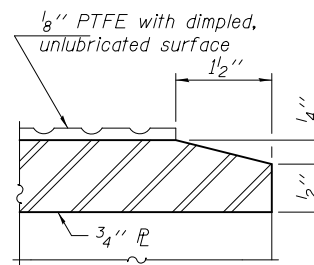
STEEL EXTENSION DETAIL



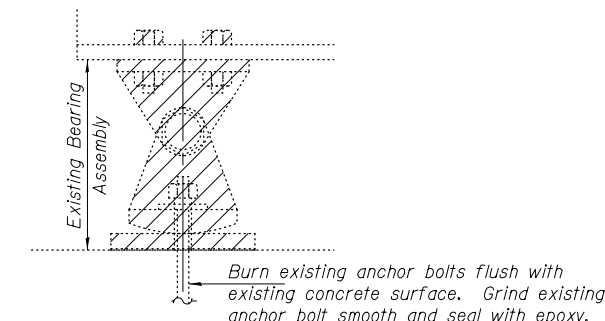
TOP BEARING ASSEMBLY (Looking North)



PLAN-TFE SURFACE

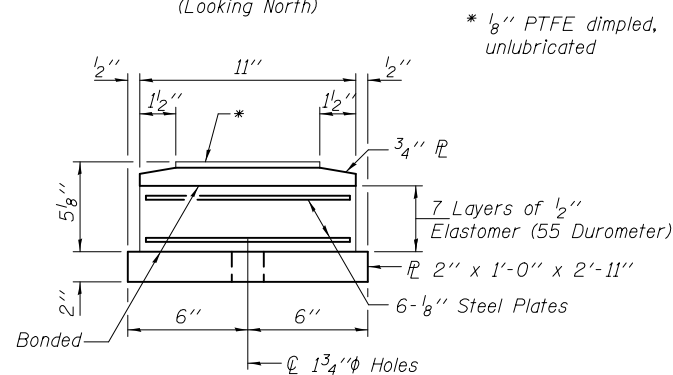


SECTION THRU TFE



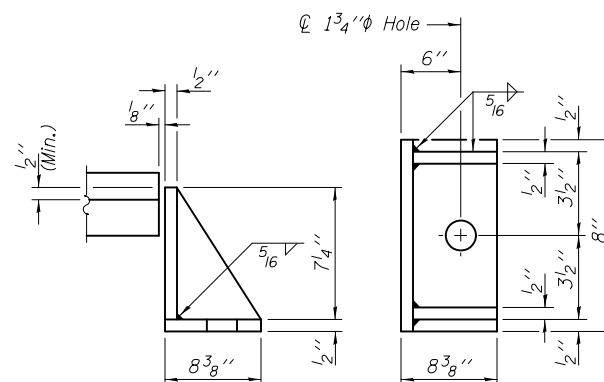
EXISTING BEARING REMOVAL DETAIL

Cost included with Jack and Remove Existing Bearings.



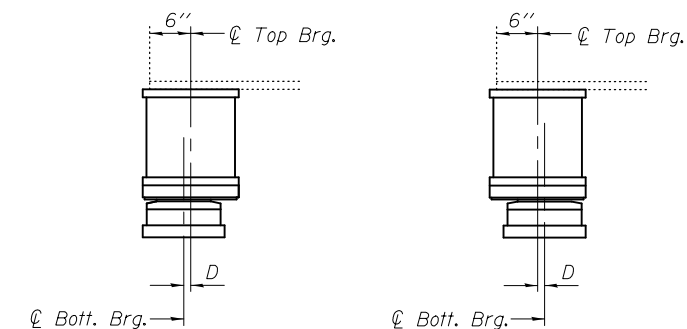
BOTTOM BEARING ASSEMBLY

* 1/8" PTFE dimpled, unlubricated



SIDE RETAINER

Equivalent rolled angle with stiffeners will be allowed in lieu of welded plates.



SETTING ANCHOR BOLTS AT EXP. BRG.

D = 1/8" per each 100' of expansion for every 15° temp. change from the normal temp. of 50°F.

BILL OF MATERIAL

Item	Unit	Total
Elastomeric Bearing Assembly Type II	Each	5
Jack and Remove Existing Bearings	Each	5
Furnishing and Erecting Structural Steel	Pound	1340
Anchor Bolts 1 1/4" φ	Each	10

TYII/REPS 12-03-2008

DESIGNED	DAB
CHECKED	VHV
DRAWN	baliva
CHECKED	DAB VHV

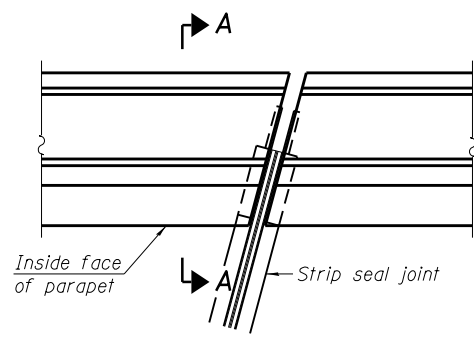
EXAMINED	<i>Timothy A. ...</i>	DATE	JANUARY 22, 2014
PASSED	<i>Carl ...</i>		

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

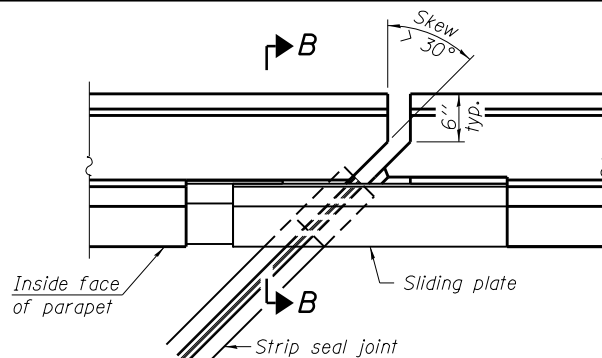
BEARING REPLACEMENT DETAILS
 SPAN 19, PIER 18
 SN 096-0010

SHEET NO. 19 OF 35 SHEETS

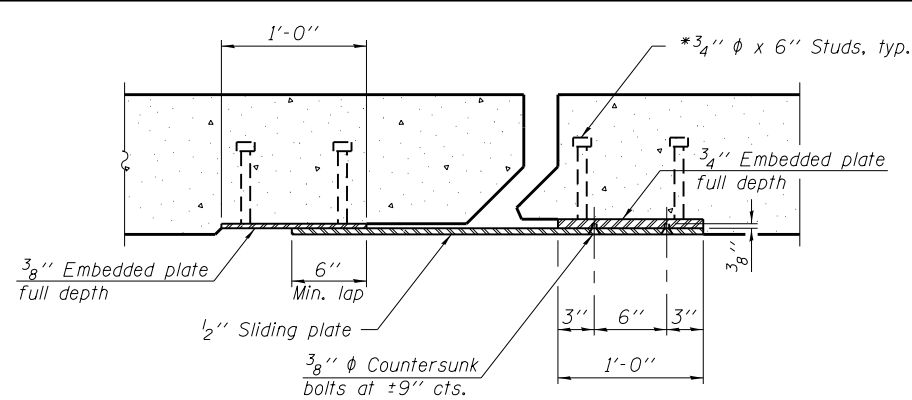
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
823	D7 BRIDGE REPAIRS 2014-3	WAYNE	60	40
			CONTRACT NO. 74618	
ILLINOIS FED. AID PROJECT				



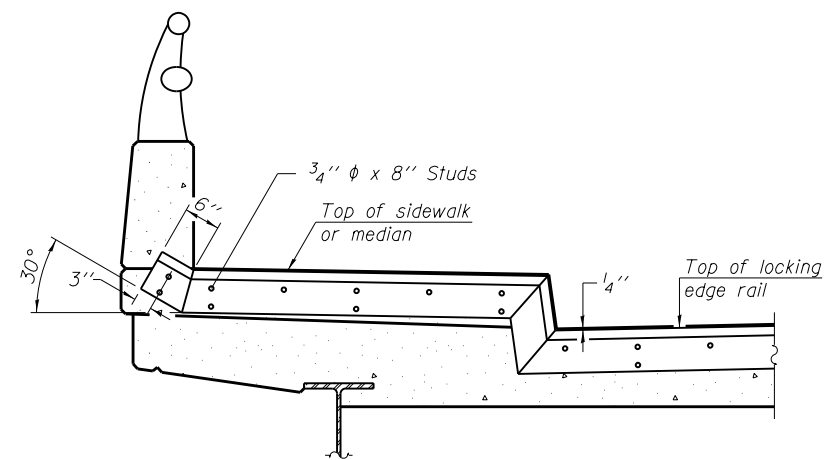
PLAN
(For skews $\leq 30^\circ$)



PLAN
(For skews $> 30^\circ$)
Showing point block

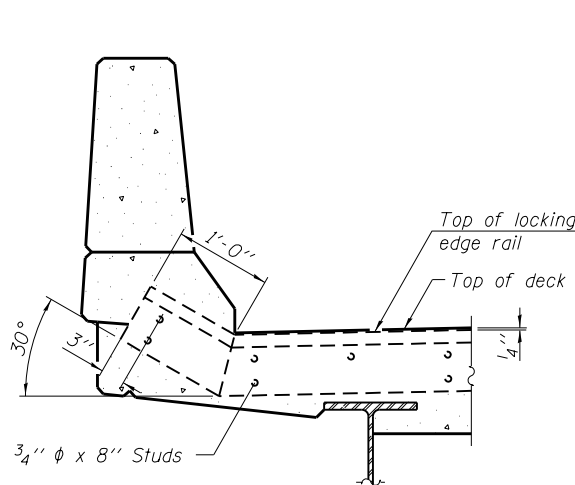


SECTION C-C

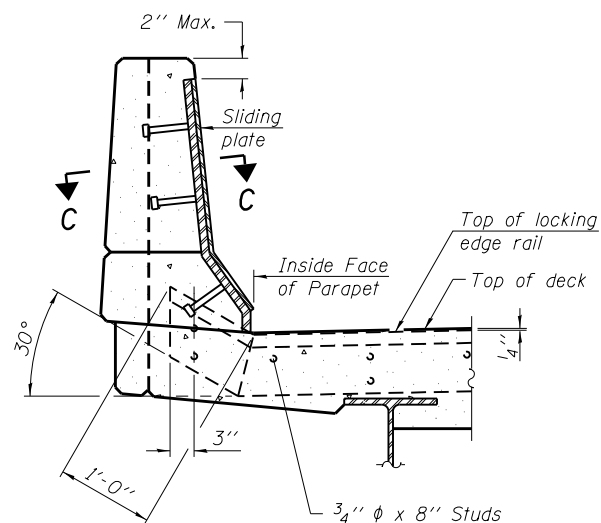


TYPICAL END TREATMENT AT SIDEWALK OR MEDIAN

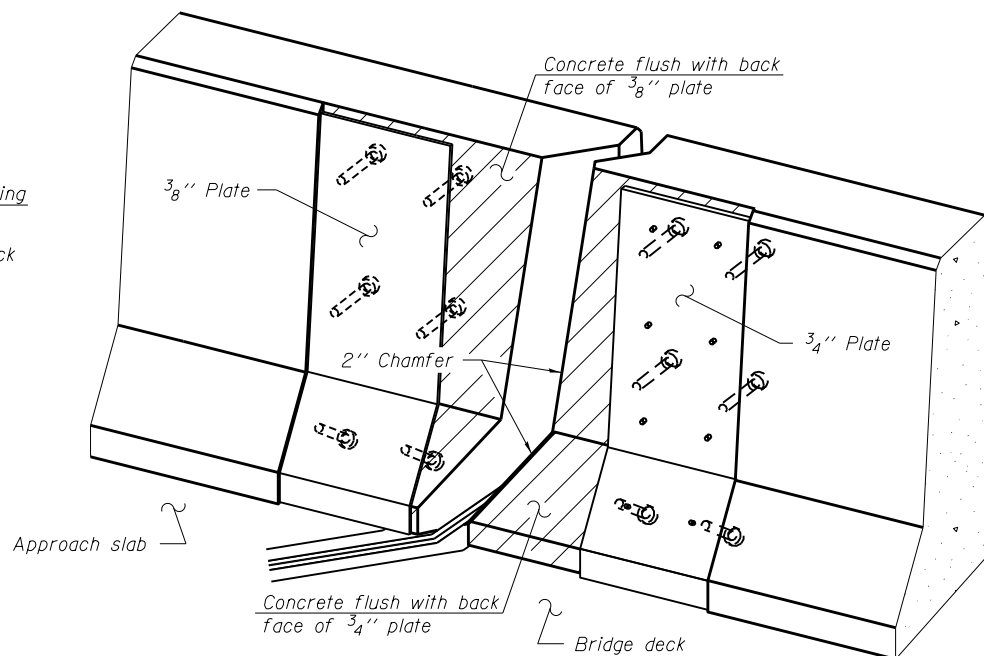
Shorter plates with a single row of studs at 12" cts. may be necessary on medians which are shallower than 9". See manufacturer's recommendation.



SECTION A-A

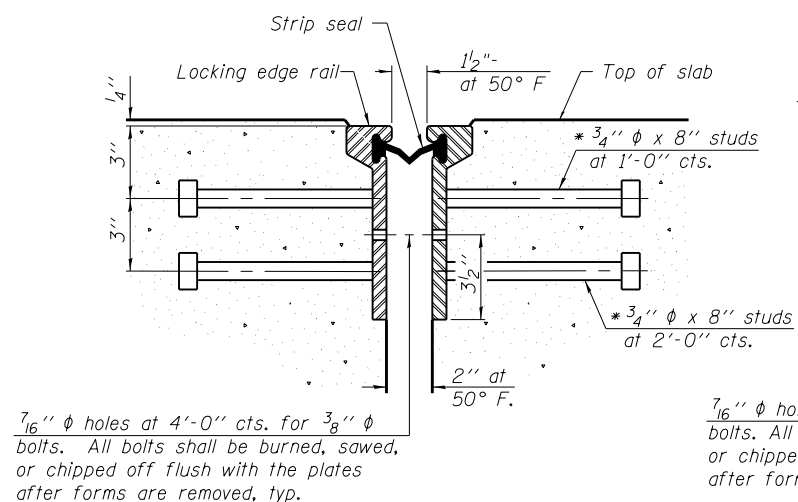


SECTION B-B

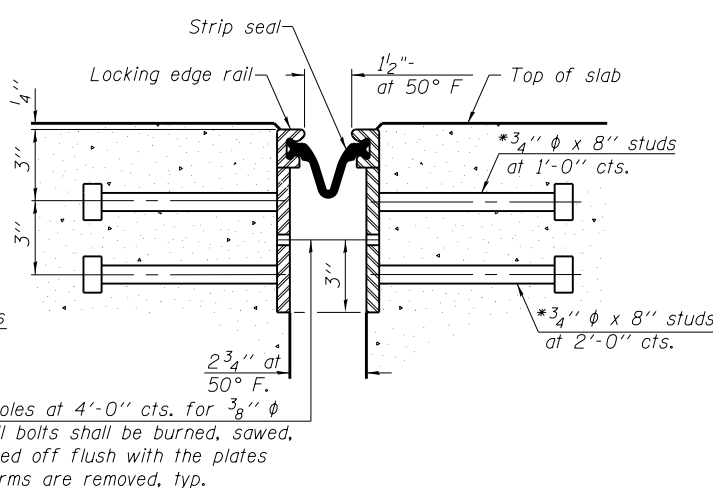


TRIMETRIC VIEW
(Showing back plates only)

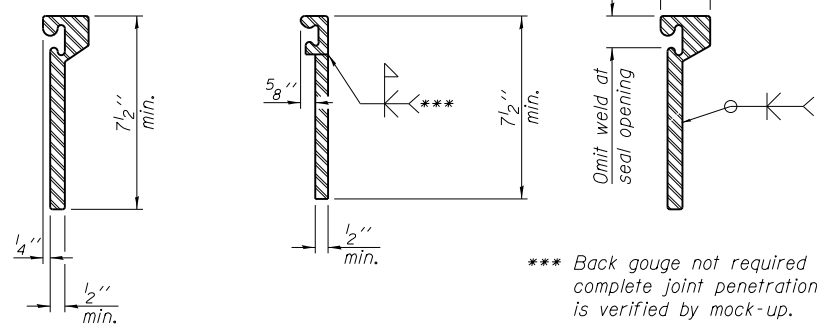
Notes:
The strip seal shall be made continuous and shall have a minimum thickness of 1/4". The configuration of the strip seal shall match the configuration of the Locking Edge Rails. Open or "webbed" strip seal gland configurations are not permitted. The gland shall be sized for a maximum rated movement of 4 inches.
The Locking Edge Rails depicted are conceptual only, except for the minimum dimensions shown. The actual configuration of the Locking Edge Rails and matching strip seal may vary from manufacturer to manufacturer. Flanged edge rails will not be allowed. Locking Edge Rails may be spliced at slope discontinuities.
The manufacturer's recommended installation methods shall be followed.
The joint opening and deck dimensions detailed on the superstructure are based on a rolled rail expansion joint. If the Contractor elects to use the welded rail expansion joint, the opening and deck dimensions shall be modified according to the dimensions detailed on this sheet. Required modifications shall be made at no additional cost to the State.
All steel components shall be galvanized after fabrication according to Article 520.03 of the Standard Specifications.
Maximum space between rail segments shall be 3/16", sealed with a suitable sealant. Joints in rails within 10 ft. of curbs shall be welded.
Parapet plates and anchorage studs for skews > 30° included in the cost of Preformed Joint Strip Seal.



SECTION THRU ROLLED RAIL JOINT



SECTION THRU WELDED RAIL JOINT



ROLLED EXTRUDED RAIL **WELDED RAIL**



LOCKING EDGE RAIL SPLICE
The inside of the locking edge rail groove shall be free of weld residue.
Rolled rail shown, welded rail similar.

LOCKING EDGE RAILS

BILL OF MATERIAL

Item	Unit	Total
Preformed Joint Strip Seal	Foot	69.0

* Granular or solid flux filled headed studs conforming to Article 1006.32 of the Std. Specs., automatically end welded.

EJ-SSJ

1-27-12

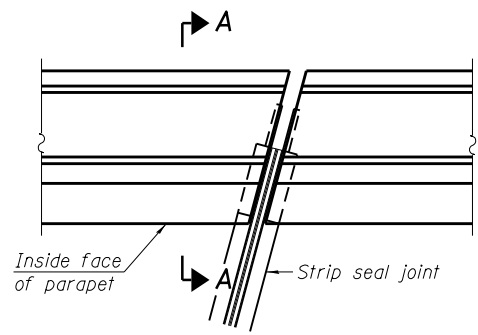
FILE NAME =	USER NAME = steffennk	DESIGNED - MJM	REVISED -
ei:\pwwork\pwwork\steffennk\d0340638\074618-sh-t-brd\details-0960010.dgn		DRAWN - MJM	REVISED -
Default	PLOT SCALE = 40.0000' / in.	CHECKED - MEA	REVISED -
	PLOT DATE = 12/6/2013	DATE - 08/13/2013	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

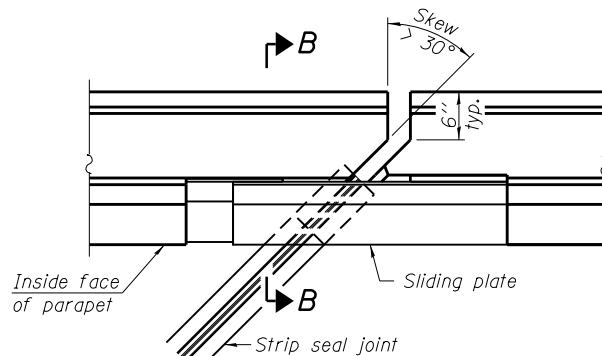
**PREFORMED JOINT STRIP SEAL - ABUTMENTS
STRUCTURE NO. 096-0010**

SCALE: N/A SHEET 20 OF 35 SHEETS STA. TO STA.

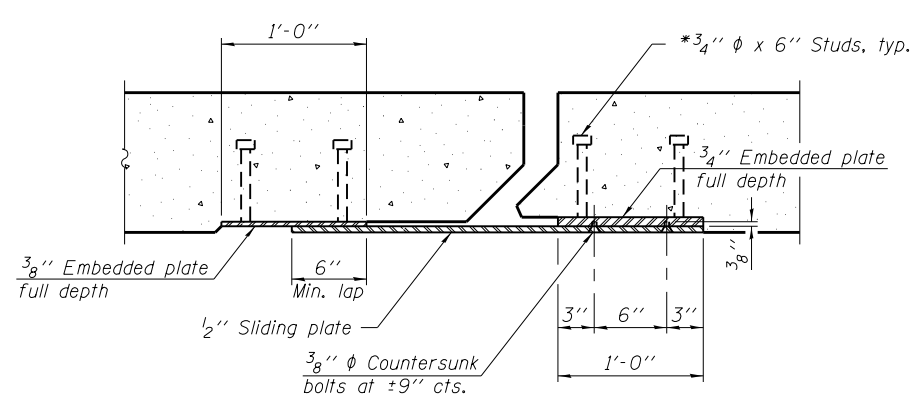
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
823	07 BRIDGE REPAIRS 2014-3	WAYNE	60	41
CONTRACT NO. 74618			ILLINOIS FED. AID PROJECT	



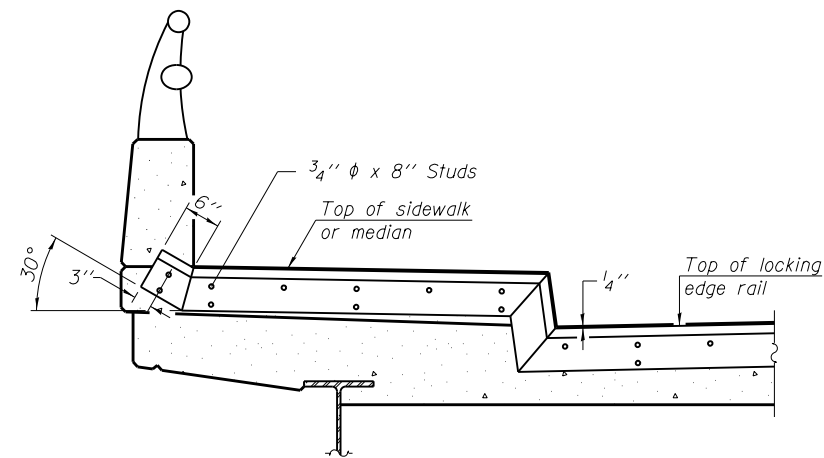
PLAN
(For skews $\leq 30^\circ$)



PLAN
(For skews $> 30^\circ$)
Showing point block

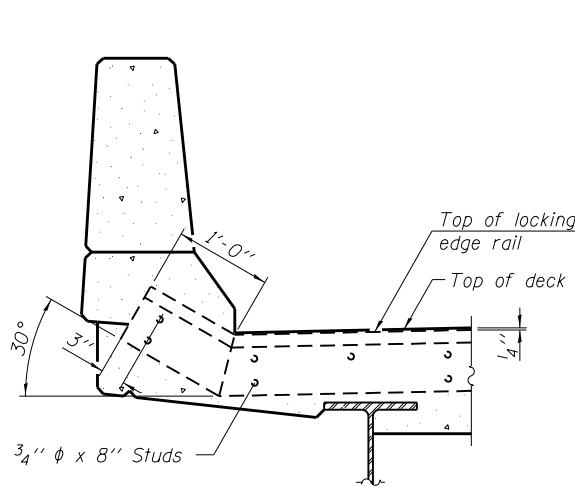


SECTION C-C

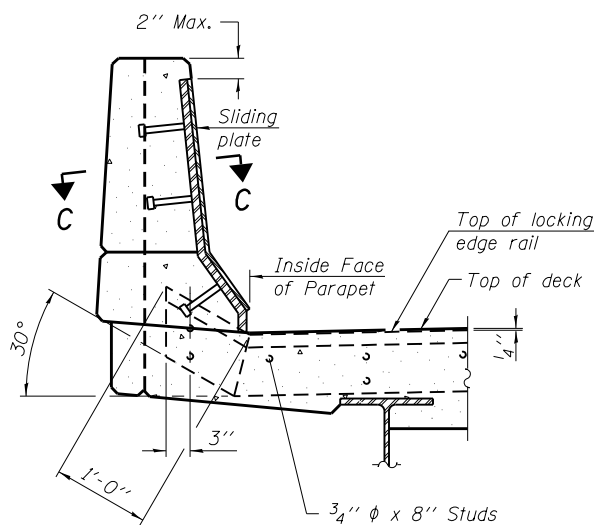


**TYPICAL END TREATMENT
AT SIDEWALK OR MEDIAN**

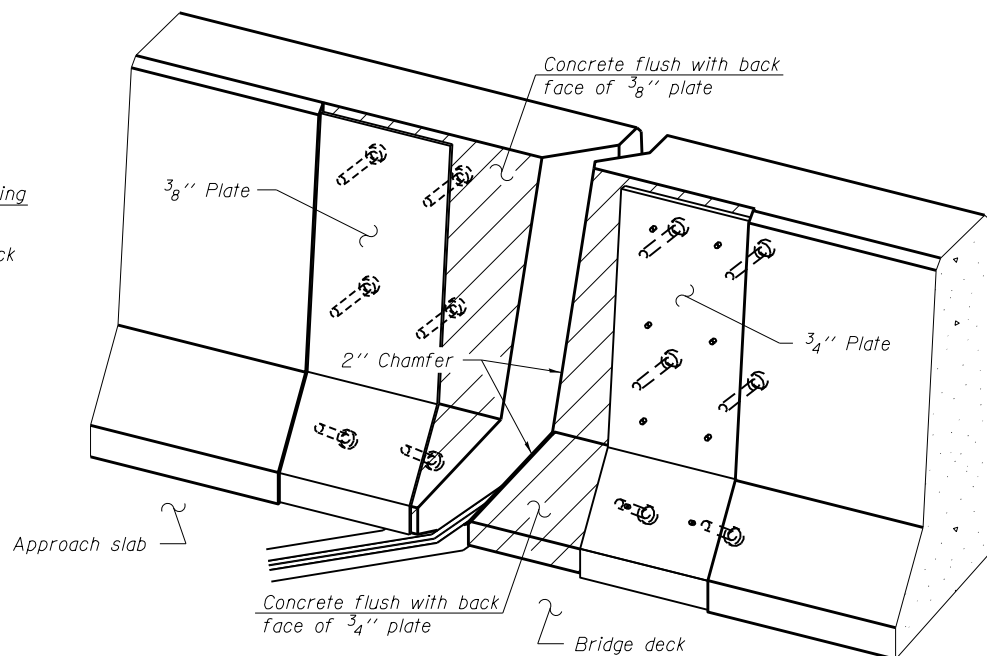
Shorter plates with a single row of studs at 12" cts. may be necessary on medians which are shallower than 9". See manufacturer's recommendation.



SECTION A-A

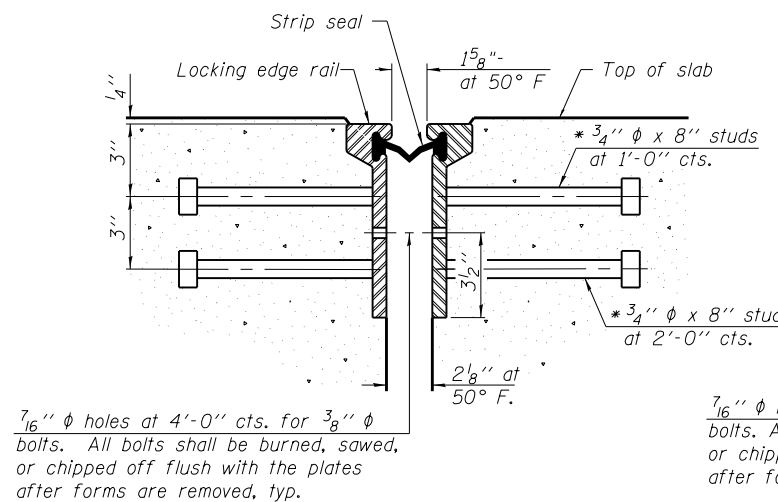


SECTION B-B

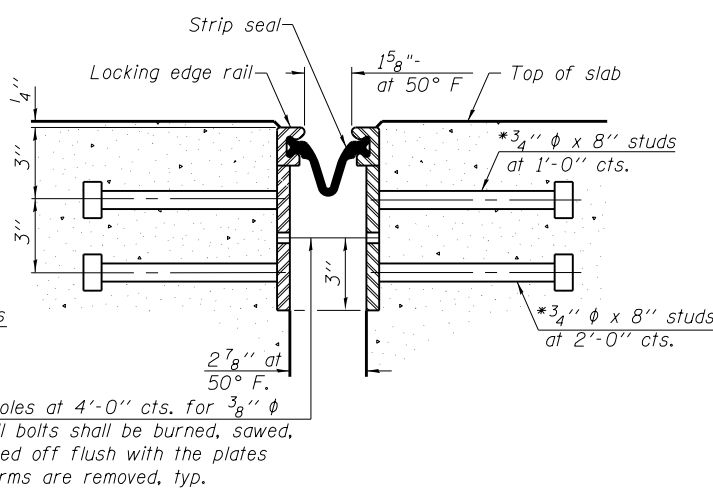


TRIMETRIC VIEW
(Showing back plates only)

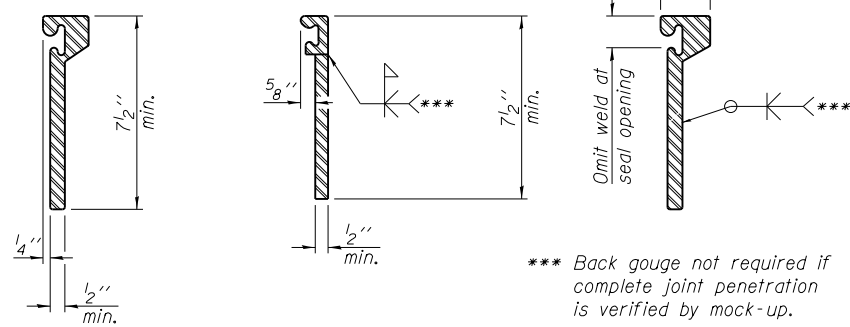
Notes:
The strip seal shall be made continuous and shall have a minimum thickness of 1/4". The configuration of the strip seal shall match the configuration of the Locking Edge Rails. Open or "webbed" strip seal gland configurations are not permitted. The gland shall be sized for a maximum rated movement of 4 inches.
The Locking Edge Rails depicted are conceptual only, except for the minimum dimensions shown. The actual configuration of the Locking Edge Rails and matching strip seal may vary from manufacturer to manufacturer. Flanged edge rails will not be allowed. Locking Edge Rails may be spliced at slope discontinuities.
The manufacturer's recommended installation methods shall be followed.
The joint opening and deck dimensions detailed on the superstructure are based on a rolled rail expansion joint. If the Contractor elects to use the welded rail expansion joint, the opening and deck dimensions shall be modified according to the dimensions detailed on this sheet. Required modifications shall be made at no additional cost to the State.
All steel components shall be galvanized after fabrication according to Article 520.03 of the Standard Specifications.
Maximum space between rail segments shall be 3/16", sealed with a suitable sealant. Joints in rails within 10 ft. of curbs shall be welded.
Parapet plates and anchorage studs for skews > 30° included in the cost of Preformed Joint Strip Seal.



**SECTION THRU
ROLLED RAIL JOINT**



**SECTION THRU
WELDED RAIL JOINT**



**ROLLED
EXTRUDED RAIL** **WELDED RAIL**



**LOCKING EDGE
RAIL SPLICE**
The inside of the locking edge rail groove shall be free of weld residue.
Rolled rail shown, welded rail similar.

LOCKING EDGE RAILS

BILL OF MATERIAL

Item	Unit	Total
Preformed Joint Strip Seal	Foot	136.0

* Granular or solid flux filled headed studs conforming to Article 1006.32 of the Std. Specs., automatically end welded.

EJ-SSJ

1-27-12

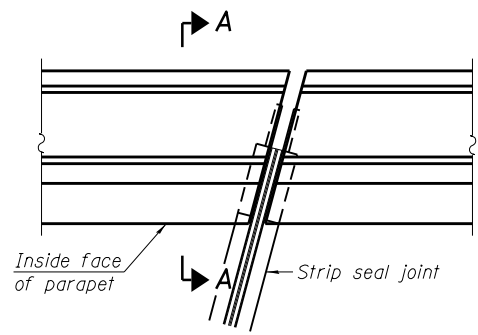
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Default	PLOT SCALE = 40.0000' / in.	CHECKED - MEA	REVISED -
	PLOT DATE = 12/6/2013	DATE - 08/13/2013	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

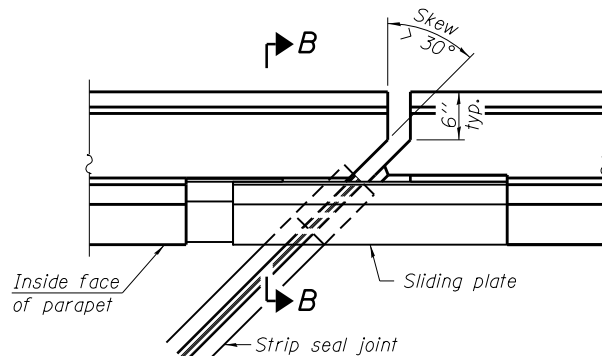
**PREFORMED JOINT STRIP SEAL - PIERS #3, 7, 11 & 15
STRUCTURE NO. 096-0010**

SCALE: N/A SHEET 21 OF 35 SHEETS STA. TO STA.

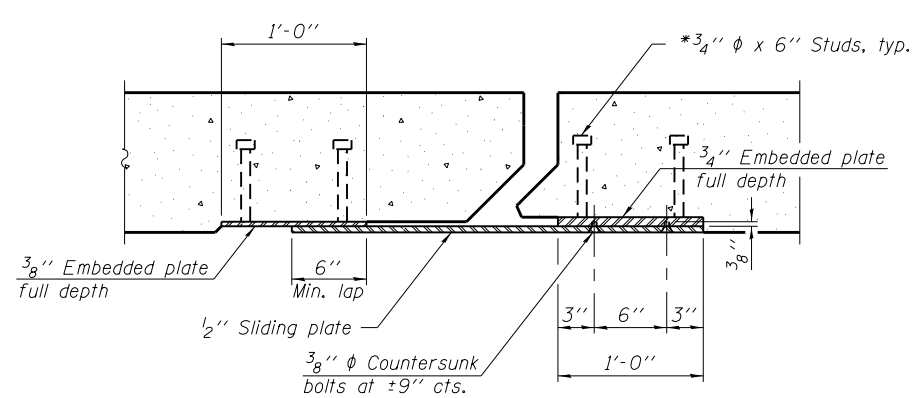
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
823	07 BRIDGE REPAIRS 2014-3	WAYNE	60	42
CONTRACT NO.			74618	
ILLINOIS FED. AID PROJECT				



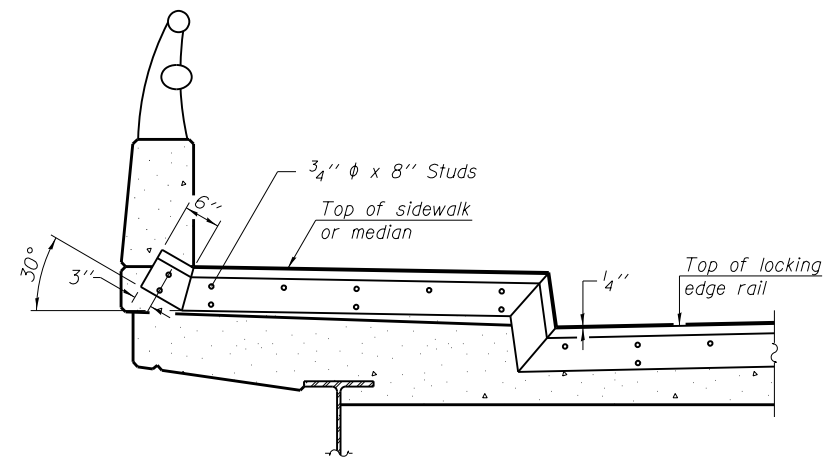
PLAN
(For skews $\leq 30^\circ$)



PLAN
(For skews $> 30^\circ$)
Showing point block

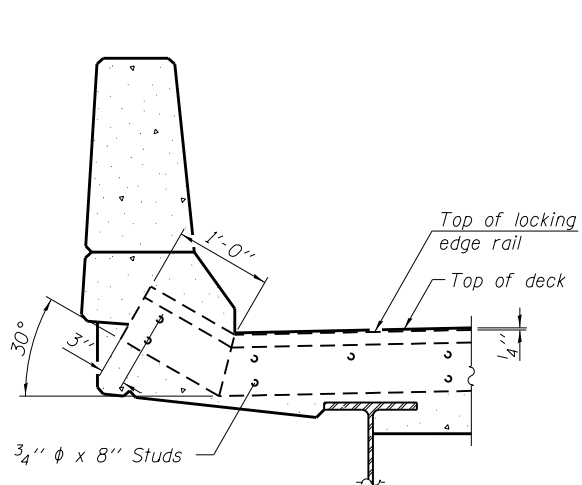


SECTION C-C

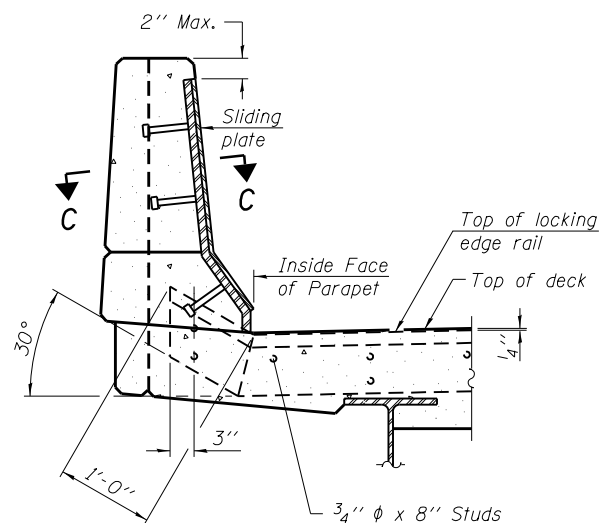


TYPICAL END TREATMENT AT SIDEWALK OR MEDIAN

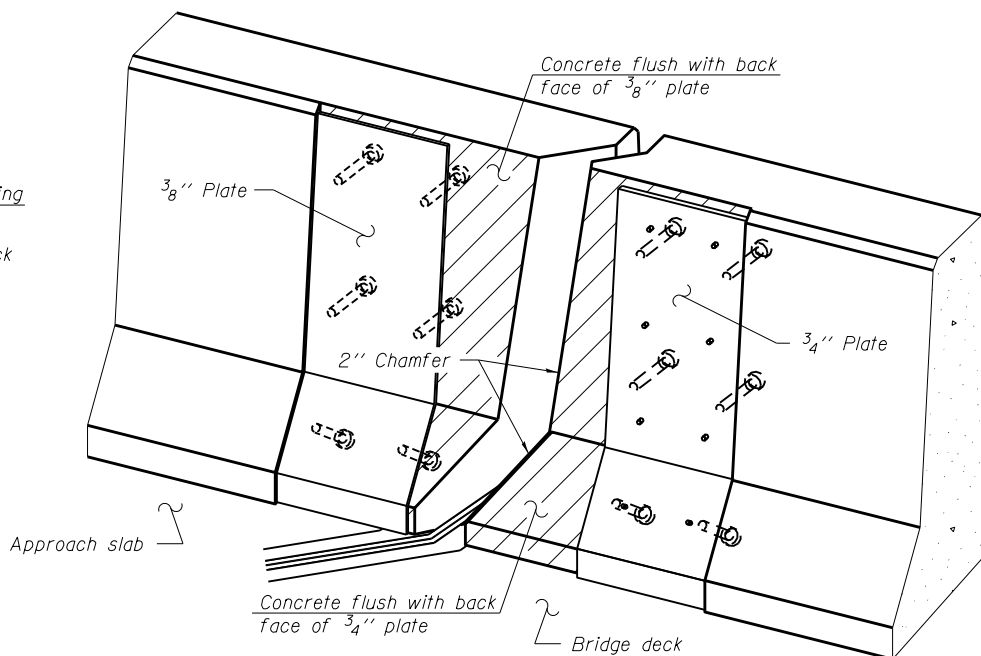
Shorter plates with a single row of studs at 12" cts. may be necessary on medians which are shallower than 9". See manufacturer's recommendation.



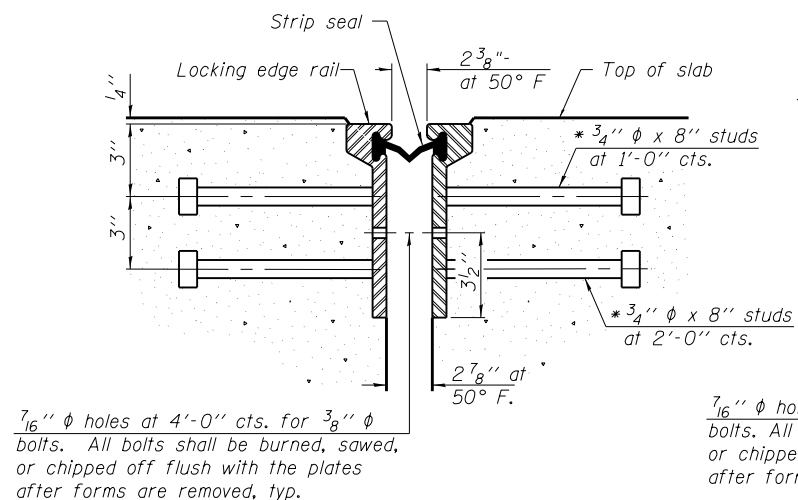
SECTION A-A



SECTION B-B

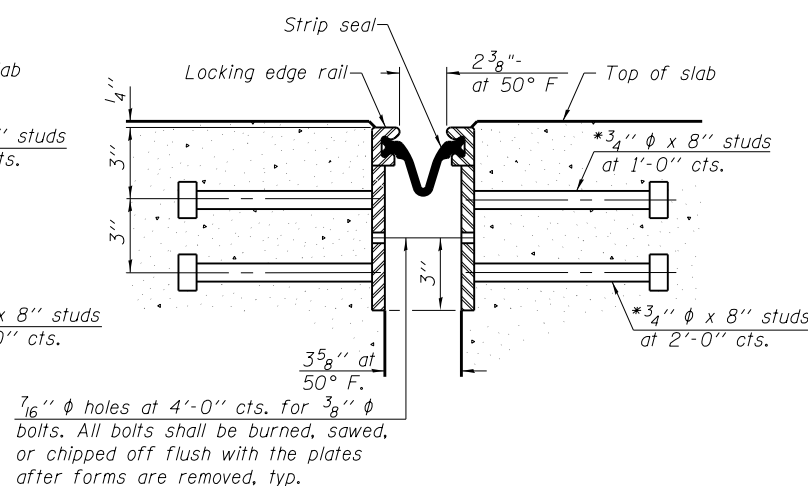


TRIMETRIC VIEW
(Showing back plates only)



SECTION THRU ROLLED RAIL JOINT

$7/16"$ ϕ holes at 4'-0" cts. for $3/8"$ ϕ bolts. All bolts shall be burned, sawed, or chipped off flush with the plates after forms are removed, typ.



SECTION THRU WELDED RAIL JOINT

$7/16"$ ϕ holes at 4'-0" cts. for $3/8"$ ϕ bolts. All bolts shall be burned, sawed, or chipped off flush with the plates after forms are removed, typ.

* Granular or solid flux filled headed studs conforming to Article 1006.32 of the Std. Specs., automatically end welded.

ROLLED EXTRUDED RAIL

WELDED RAIL

LOCKING EDGE RAIL SPLICE

The inside of the locking edge rail groove shall be free of weld residue.
Rolled rail shown, welded rail similar.

LOCKING EDGE RAILS

BILL OF MATERIAL

Item	Unit	Total
Preformed Joint Strip Seal	Foot	34.0

EJ-SSJ

1-27-12

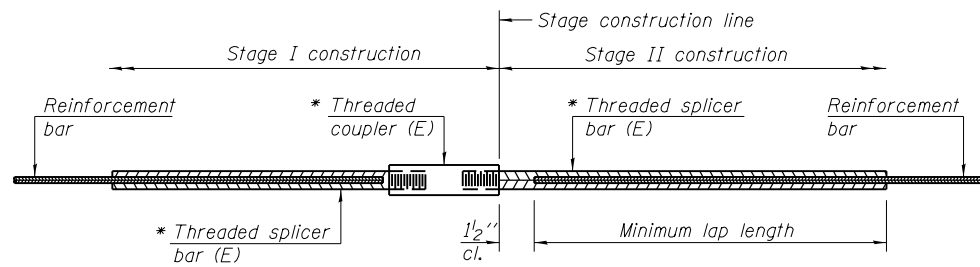
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Default	PLOT SCALE = 40.0000' / in.	CHECKED - MEA	REVISED -
	PLOT DATE = 12/6/2013	DATE - 08/13/2013	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PREFORMED JOINT STRIP SEAL - PIER #18
STRUCTURE NO. 096-0010

SCALE: N/A SHEET 22 OF 35 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
823	07 BRIDGE REPAIRS 2014-3	WAYNE	60	43
CONTRACT NO.			74618	
ILLINOIS FED. AID PROJECT				



STANDARD BAR SPLICER ASSEMBLY

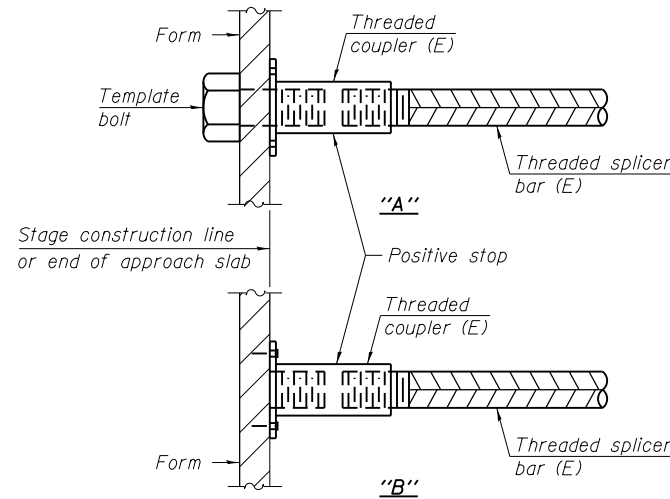
Bar size to be spliced	Minimum Lap Lengths					
	Table 1	Table 2	Table 3	Table 4	Table 5	Table 6
3, 4	1'-5"	1'-11"	2'-1"	2'-4"	2'-7"	2'-11"
5	1'-9"	2'-5"	2'-7"	2'-11"	3'-3"	3'-8"
6	2'-1"	2'-11"	3'-1"	3'-6"	3'-10"	4'-5"
7	2'-9"	3'-10"	4'-2"	4'-8"	5'-2"	5'-10"
8	3'-8"	5'-1"	5'-5"	6'-2"	6'-9"	7'-8"
9	4'-7"	6'-5"	6'-10"	7'-9"	8'-7"	9'-8"

- Table 1: Black bar, 0.8 Class C
- Table 2: Black bar, Top bar lap, 0.8 Class C
- Table 3: Epoxy bar, 0.8 Class C
- Table 4: Epoxy bar, Top bar lap, 0.8 Class C
- Table 5: Epoxy bar, Class C
- Table 6: Epoxy bar, Top bar top, Class C

Threaded splicer bar length = min. lap length + 1/2" + thread length

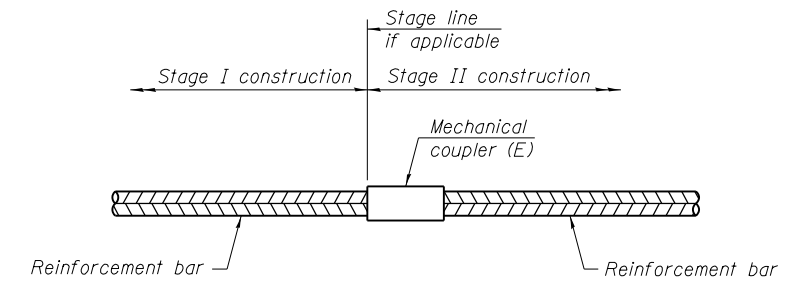
* Epoxy not required on Bar Splicer Assembly components used in conjunction with black bars.

Location	Bar size	No. assemblies required	Table for minimum lap length
East Abutment	#5	12	Table 3
East Abutment	#6	4	Table 3
Pier #3	#5	16	Table 3
Pier #7	#5	16	Table 3
Pier #11	#5	16	Table 3
Pier #15	#5	16	Table 3
Pier #18	#5	16	Table 3
West Abutment	#5	12	Table 3
West Abutment	#6	4	Table 3



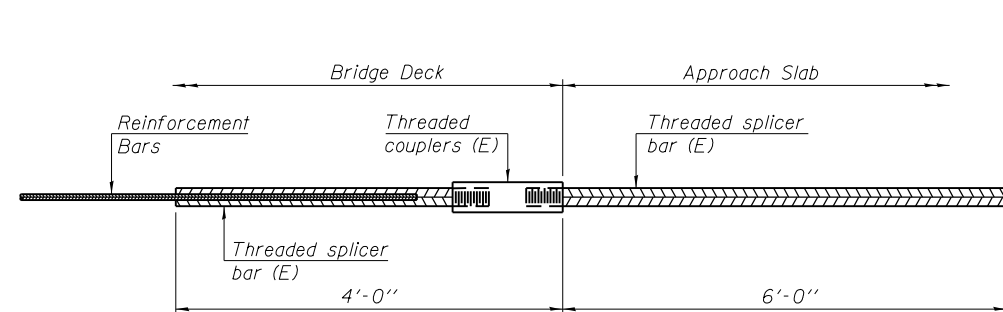
INSTALLATION AND SETTING METHODS

"A" : Set bar splicer assembly by means of a template bolt.
 "B" : Set bar splicer assembly by nailing to wood forms or cementing to steel forms.
 (E) : Indicates epoxy coating.



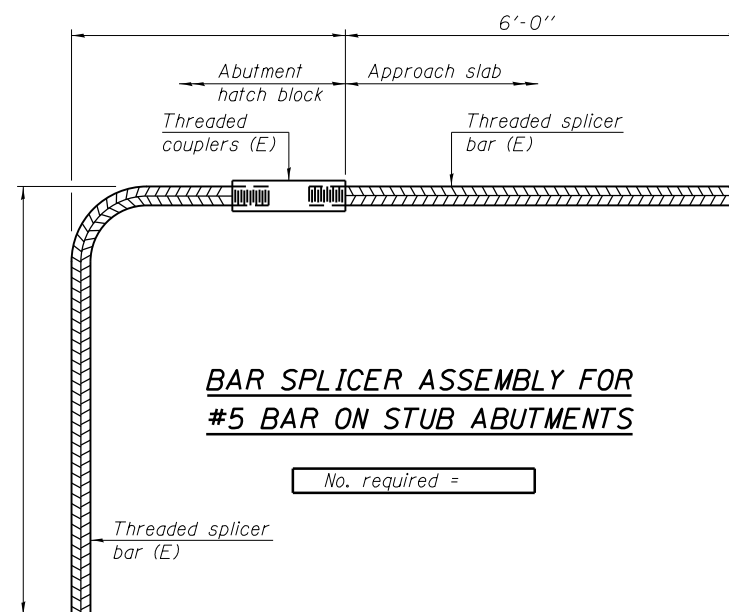
STANDARD MECHANICAL SPLICER

Location	Bar size	No. assemblies required



BAR SPLICER ASSEMBLY FOR #5 BAR ON INTEGRAL OR SEMI-INTEGRAL ABUTMENTS

No. required =



BAR SPLICER ASSEMBLY FOR #5 BAR ON STUB ABUTMENTS

No. required =

NOTES

Splicer bars shall be deformed with threaded ends and have a minimum 60 ksi yield strength.
 All reinforcement shall be lapped and tied to the splicer bars.
 Bar splicer assemblies shall be epoxy coated according to the requirements for reinforcement bars. See Section 508 of the Standard Specifications.
 See approved list of bar splicer assemblies and mechanical splicers for alternatives.

BSD-1

1-27-12

FILE NAME =	USER NAME = steffennk	DESIGNED - MJM	REVISED -
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Default	PLOT SCALE = 40.0000' / in.	CHECKED - MEA	REVISED -
	PLOT DATE = 12/6/2013	DATE - 08/13/2013	REVISED -

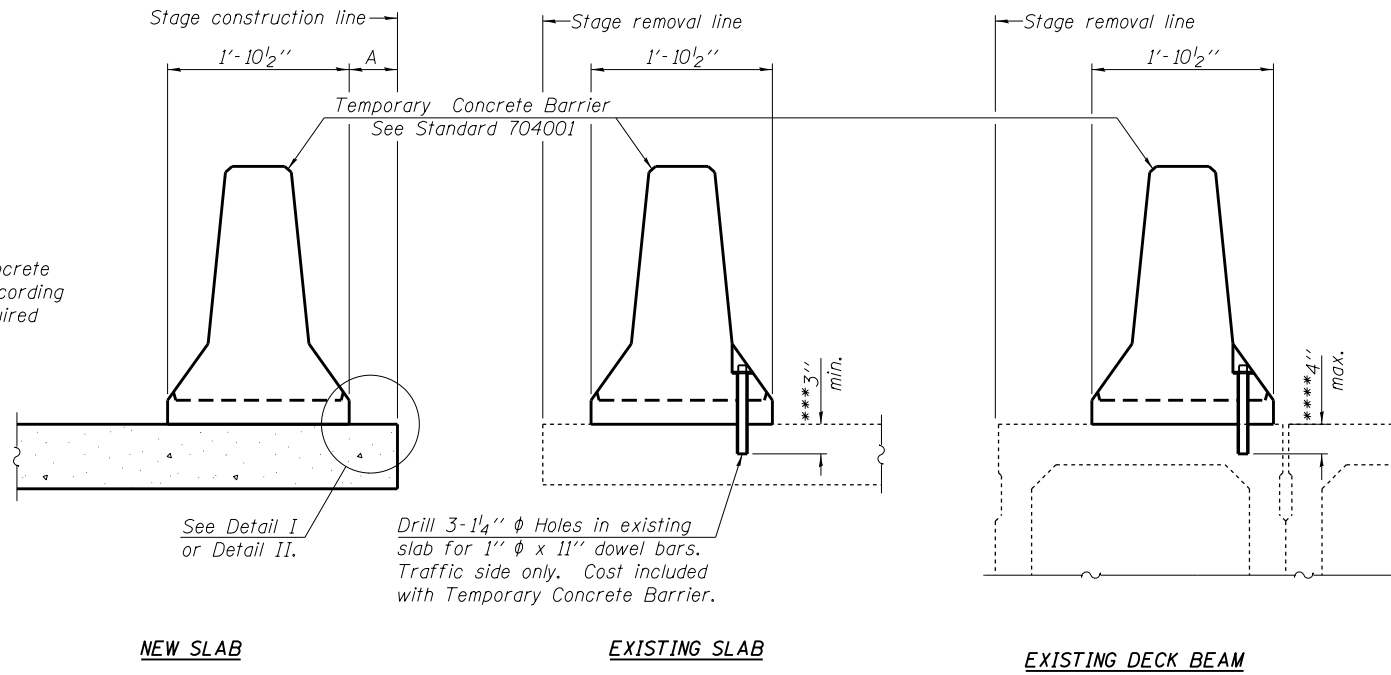
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

BAR SPLICER ASSEMBLY AND MECHANICAL SPLICER DETAILS
SN. 096-0010

SCALE: N/A SHEET 23 OF 35 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
823	07 BRIDGE REPAIRS 2014-3	WAYNE	60	44
CONTRACT NO. 74618			ILLINOIS FED. AID PROJECT	

When "A" is 3'-6" or less, the temporary concrete barrier shall be anchored to the new slab according to Detail I or Detail II. No anchorage is required when "A" is greater than 3'-6".



SECTIONS THRU SLAB OR DECK BEAM

NOTES

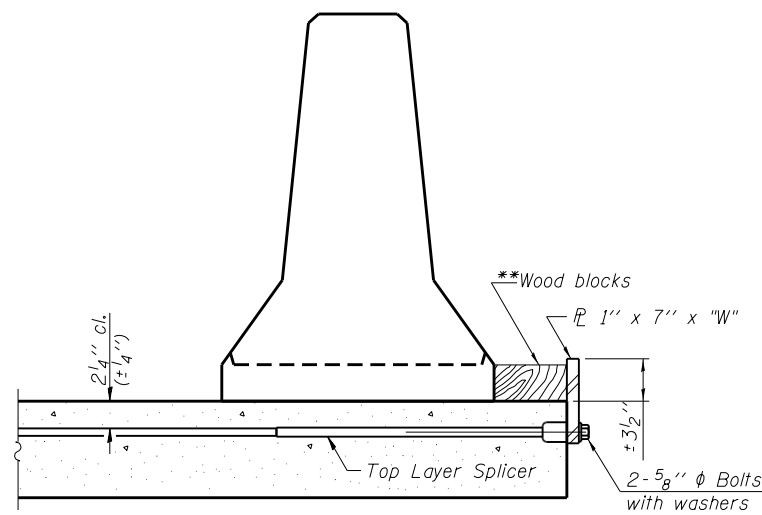
Detail I - With Bar Splicer or Couplers:
Connect one (1) 1" x 7" x "W" steel PL to the top layer of couplers with 2-5/8" φ bolts screwed to coupler at approximate C of each barrier panel.

Detail II - With Extended Reinforcement Bars:
Connect one (1) 1" x 7" x "W" steel PL to the concrete slab or concrete wearing surface with 2-5/8" φ Expansion Anchors or cast in place inserts spaced between the top layer of reinforcement at approximate C of each barrier panel.

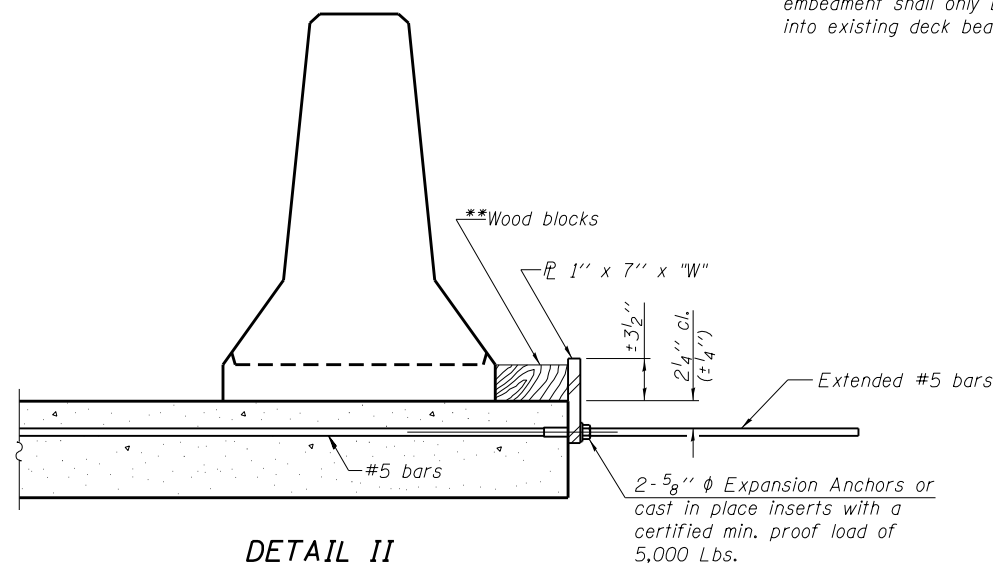
Cost of anchorage is included with Temporary Concrete Barrier. The 1" x 7" x "W" plate shall not be removed until stage II construction forms and all reinforcement bars are in place and the concrete is ready to be placed.

*** Dimension shown is minimum required embedment into concrete. If hot-mix asphalt wearing surface is present, minimum embedment shall be in addition to wearing surface depth.

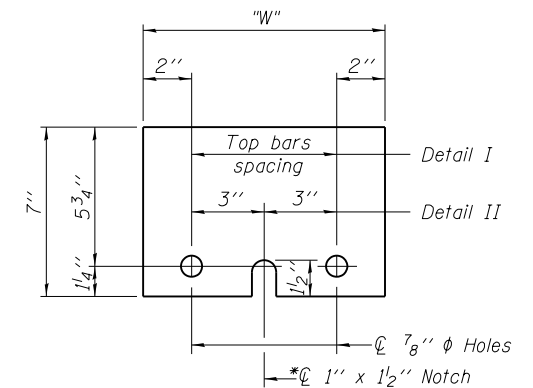
**** If existing deck beam is to remain in place after stage construction, embedment shall only be into wearing surface and not into existing deck beam concrete.



DETAIL I



DETAIL II



STEEL RETAINER PL 1" x 7" x "W"

* Required only with Detail II

** Wood blocks may be omitted when required to provide minimum stage traffic lane width. When the wood blocks are omitted, the concrete barrier shall be in direct contact with the steel retainer plate.

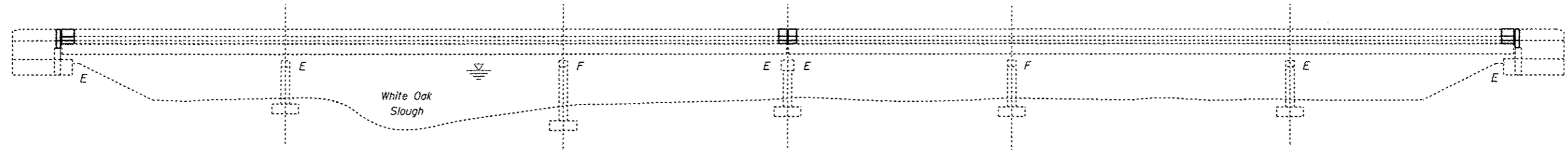
"W" = Top bars spacing + 4"

R-27

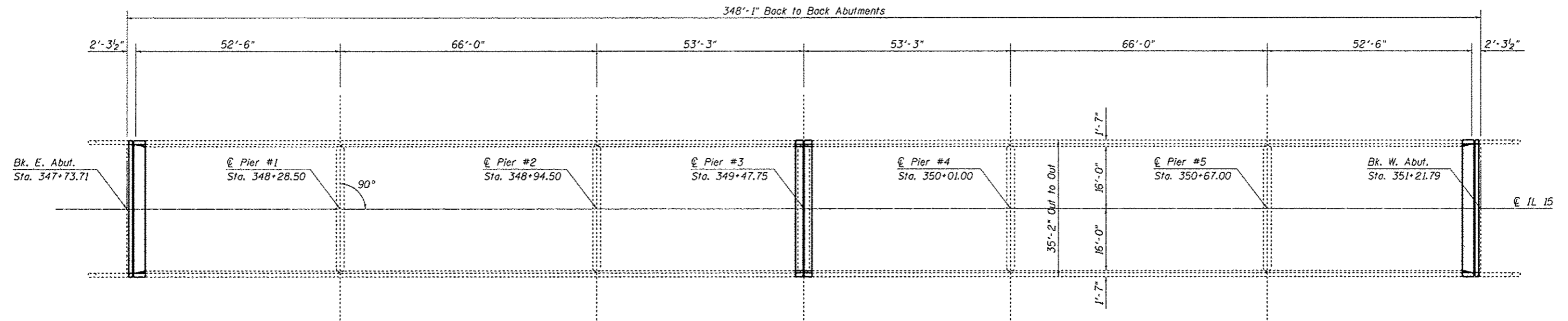
7-1-10

FILE NAME =	USER NAME = steffennk	DESIGNED - MJM	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	TEMPORARY CONCRETE BARRIER FOR STAGE CONSTRUCTION SN. 096-0010			F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
Default	74618-sh-t-brdetails-0960010.dgn	DRAWN - MJM	REVISED -					823	07 BRIDGE REPAIRS 2014-3	WAYNE	60	45
	PLOT SCALE = 40.0000' / in.	CHECKED - MEA	REVISED -					CONTRACT NO. 74618				
	PLOT DATE = 12/6/2013	DATE - 08/13/2013	REVISED -					ILLINOIS FED. AID PROJECT				
				SCALE: N/A	SHEET 24	OF 35 SHEETS	STA.	TO STA.				

The existing six span continuous steel multi-beam structure was constructed in 1982 as FA-823 section 22-BR-3 at Sta. 348+61.5. SN. 096-0061 carries FAP 823 (IL 15) over the White Oak Slough. The proposed project consists of new expansion joints and new elastomeric bearings.



ELEVATION



PLAN



*David Carl Puzey 1/23/14
Expires 11/30/14*

EXISTING DESIGN STRESSES

- $f_c = 3,500$ p.s.i. (Super)
- $f_c = 1,400$ p.s.i. (Sub.)
- $f_y = 60,000$ p.s.i. (Reinf. Super)
- $f_y = 50,000$ p.s.i. (M-223, Gr. 50)
- $f_s = 24,000$ p.s.i. (Reinf. Sub.)
- $n = 9$ (for composite)

FILE NAME *	USER NAME * staffennk	DESIGNED - KLB	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	GENERAL PLAN AND ELEVATION SN. 096-0061		F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
cr:\p\work\p\side\staffennk\08348539\074618-4ht-brp\pr-f-0960061.dgn		DRAWN - 06/25/2013	REVISED -		SCALE: N/A	SHEET 25 OF 35 SHEETS	STA.	823	07 BRIDGE REPAIRS 2014-3	WAYNE	60	46
Default	PLOT SCALE = 48.0000' / in.	CHECKED - MEA	REVISED -				TO STA.					
	PLOT DATE = 12/6/2013	DATE - 08/13/2013	REVISED -									

GENERAL NOTES

Plan dimensions and details relative to existing plans are subject to nominal construction variations. The Contractor shall field verify existing dimensions and details affecting new construction and make necessary approved adjustments prior to construction or ordering of materials. Such variations shall not be cause for additional compensation for a change in scope of work, however, the Contractor will be paid for the quantity actually furnished at the unit price bid for the work.

Reinforcement Bars designated (E) shall be epoxy coated.

Existing reinforcement bars extending into the removal area shall be cleaned, straightened and incorporated into the new construction. Any reinforcement bars that are damaged during concrete removal operations shall be replaced using an approved bar splicer or anchorage system. Cost included in CONCRETE REMOVAL.

Joint openings shall be adjusted according to Article 520.04 of the Standard Specifications when the deck is poured at an ambient temperature other than 50°F.

Removal and reinstallation of guardrail sections will be necessary for construction of the expansion joints. All existing embedded anchors that are within the concrete removal area shall be cleaned and incorporated in the new construction or new approved alternatives shall be supplied and installed. This work and all materials shall be included in the contract unit price for CONCRETE SUPERSTRUCTURE.

Prior to pouring the new concrete deck, all heavy and loose rust, loose mill scale, and other loose or potentially detrimental foreign material shall be removed from the surfaces in contact with concrete. Tightly adhered paint may remain unless otherwise noted. Removal shall be accomplished by methods that will not damage the steel and the cost will be included in the pay item covering removal of the existing concrete.

All structural steel shall conform to AASHTO Classification M-270 Gr. 36 unless otherwise noted.

The existing structural steel coating contains lead. The Contractor shall take appropriate precautions to deal with the presence of lead on this project.

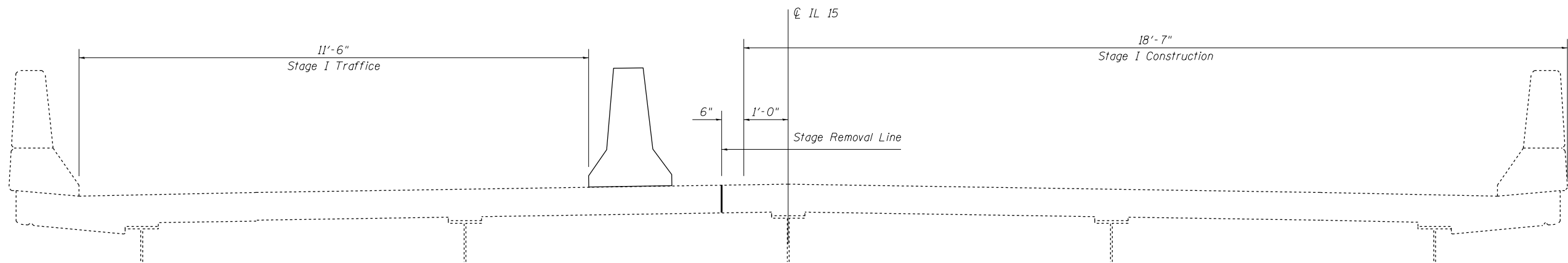
The deck surface shall have its final finish tined according to Article 420.09(e)(1) of the Standard Specifications. Cost included with Concrete Superstructures.

TOTAL BILL OF MATERIALS

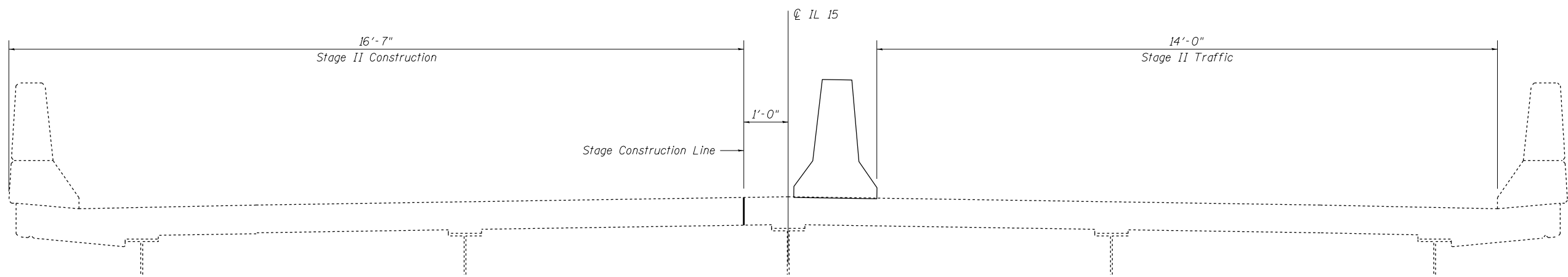
SN. 096-0061

ITEM	UNIT	QUANTITY
Concrete Removal	Cu. Yd.	16.5
Concrete Superstructure	Cu. Yd.	16.5
Reinforcement Bars, Epoxy Coated	Pound	2310
Bar Splicers	Each	50
Preformed Joint Strip Seal	Foot	104.5
* Protective Coat	Sq Yd	14
Elastomeric Bearing Assembly, Type I	Each	10
Elastomeric Bearing Assembly, Type II	Each	10
Jack and Remove Existing Bearings	Each	20
Furnishing and Erecting Structural Steel	Pound	2510
Anchor Bolts, 1"Ø	Each	40

*Apply to new concrete only.



STAGE I LOOKING WEST



STAGE II LOOKING WEST

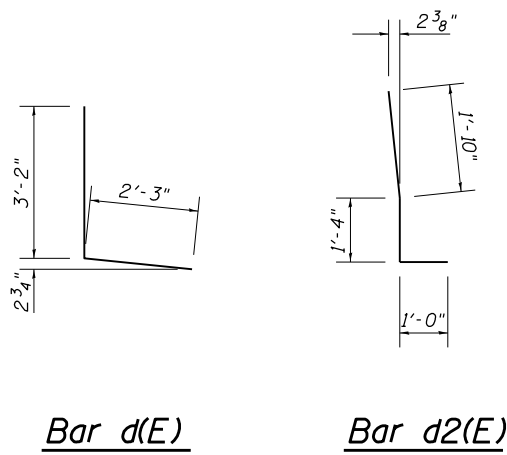
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	PLOT DATE = 12/6/2013	DATE - 08/13/2013	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**GENERAL NOTES AND BILL OF MATERIALS
SN. 096-0061**

SCALE: N/A SHEET 26 OF 35 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
823	07 BRIDGE REPAIRS 2014-3	WAYNE	60	47
ILLINOIS FED. AID PROJECT			CONTRACT NO. 74618	



Bar d(E)

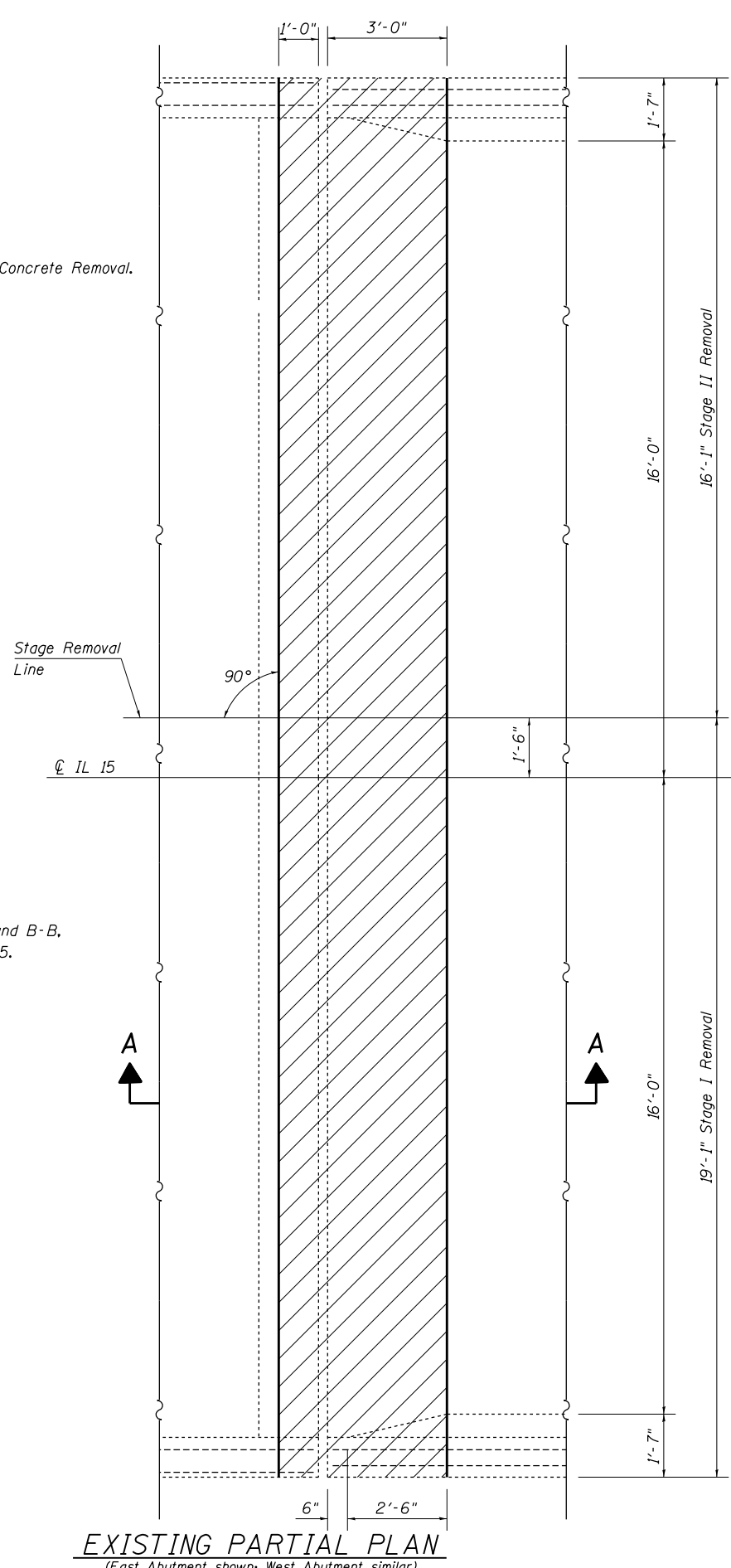
Bar d2(E)

Hatching indicates Concrete Removal.

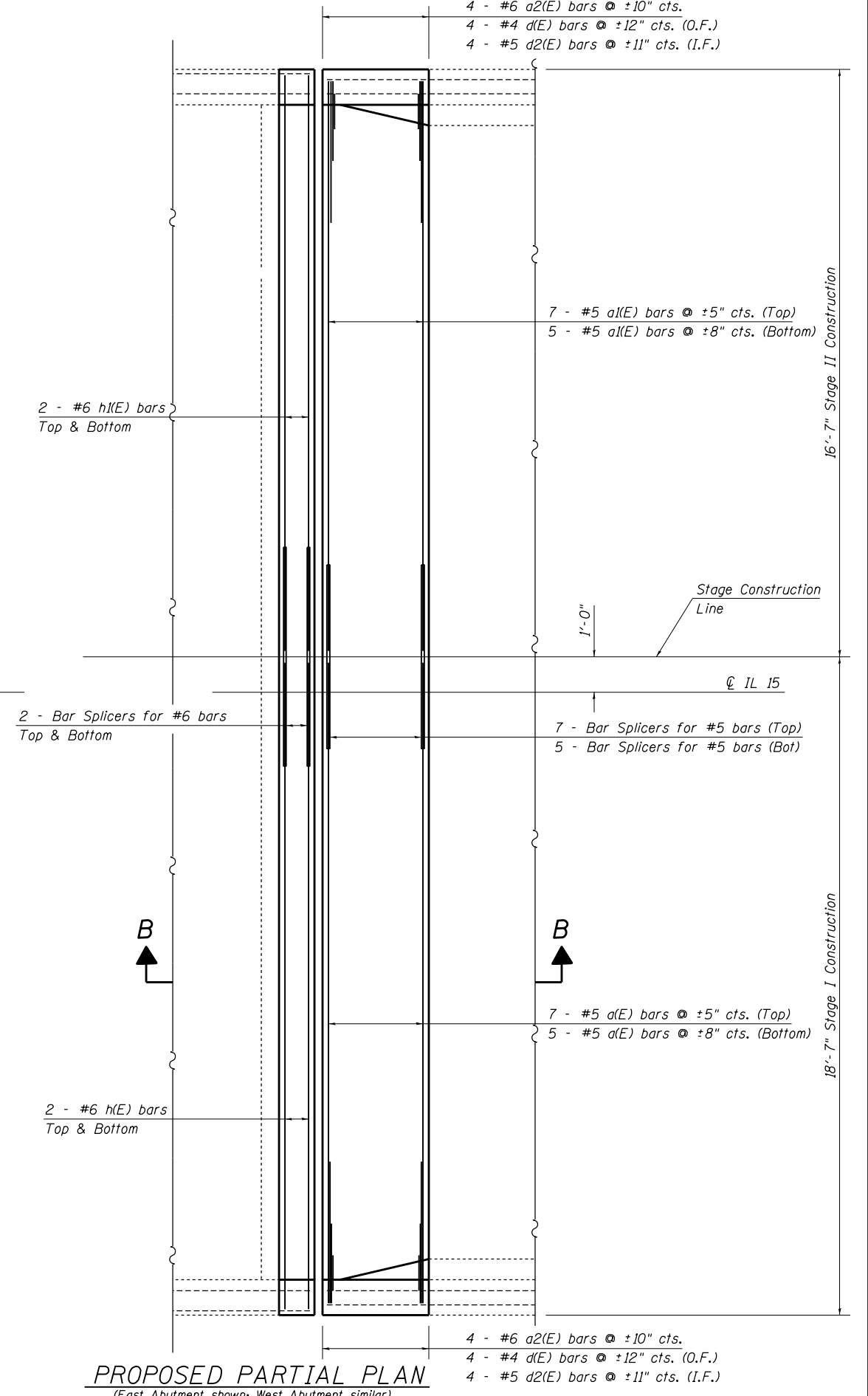
For Section A-A and B-B, see sheet 29 of 35.

BILL OF MATERIAL
PER ABUTMENT

BAR	NUMBER OF BARS		TOTAL	SIZE	LENGTH	SHAPE
	STAGE I	STAGE II				
a (E)	12		12	#5	18'-1"	—
a1(E)		12	12	#5	16'-1"	—
a2(E)	4	4	8	#6	4'-0"	—
d (E)	4	4	8	#4	5'-5"	L
d2(E)	4	4	8	#5	4'-2"	L
h (E)	4		4	#6	18'-3"	—
h1(E)		4	4	#6	16'-3"	—
REINFORCEMENT BARS (EPOXY COATED)					POUND	750
CONCRETE REMOVAL					CU YD	5.7
CONCRETE SUPERSTRUCTURE					CU YD	5.7



EXISTING PARTIAL PLAN
(East Abutment shown; West Abutment similar)



PROPOSED PARTIAL PLAN
(East Abutment shown; West Abutment similar)

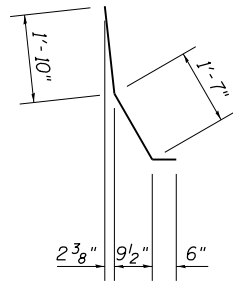
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Default	PLOT SCALE = 40.0000' / in.	CHECKED - MEA	REVISED -
	PLOT DATE = 12/6/2013	DATE - 08/13/2013	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EXPANSION JOINT REPLACEMENT DETAILS - ABUTMENTS
SN. 096-0061

SCALE: N/A SHEET 27 OF 35 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
823	07 BRIDGE REPAIRS 2014-3	WAYNE	60	48
CONTRACT NO.			74618	
ILLINOIS FED. AID PROJECT				



Bar d(E)

Hatching indicates Concrete Removal.

EXISTING PARTIAL PLAN

For Section C-C and D-D, see sheet 29 of 35.

BILL OF MATERIAL

PIER #3

BAR	NUMBER OF BARS		TOTAL	SIZE	LENGTH	SHAPE
	STAGE I	STAGE II				
a (E)	18		18	#5	18'-1"	—
a1(E)		18	18	#5	16'-1"	—
a2(E)	6	6	12	#6	4'-0"	—
d (E)	6	6	12	#4	5'-5"	L
d1(E)	6	6	12	#5	3'-11"	U
REINFORCEMENT BARS (EPOXY COATED)					POUND	810
CONCRETE REMOVAL					CU YD	5.1
CONCRETE SUPERSTRUCTURE					CU YD	5.1

Stage Removal Line

CL IL 15

C

90°

1'-6"

C

16'-0" Stage I Removal

16'-0" Stage II Removal

PROPOSED PARTIAL PLAN

5 - #5 a1(E) bars @ ±5" cts. (Top)
4 - #5 a1(E) bars @ ±8" cts. (Bot.)

5 - #5 a(E) bars @ ±5" cts. (Top)
4 - #5 a(E) bars @ ±8" cts. (Bot.)

5 - #5 a1(E) bars @ ±5" cts. (Top)
4 - #5 a1(E) bars @ ±8" cts. (Bot.)

3 - #4 d(E) bar @ ±12" cts.
3 - #5 d1(E) bars @ ±11" cts.
3 - #6 a2(E) bars @ ±10" cts.

5 - #5 a1(E) bars @ ±5" cts. (Top)
4 - #5 a1(E) bars @ ±8" cts. (Bot.)

5 - #5 a(E) bars @ ±5" cts. (Top)
4 - #5 a(E) bars @ ±8" cts. (Bot.)

3 - #4 d(E) bar @ ±12" cts.
3 - #5 d1(E) bars @ ±11" cts.
3 - #6 a2(E) bars @ ±10" cts.

Stage Construction Line

CL IL 15

18'-7" Stage I Construction

16'-7" Stage II Construction

FILE NAME =	USER NAME = steffernk	DESIGNED - KLB	REVISED -
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	PLOT DATE = 12/6/2013	DATE - 08/13/2013	REVISED -

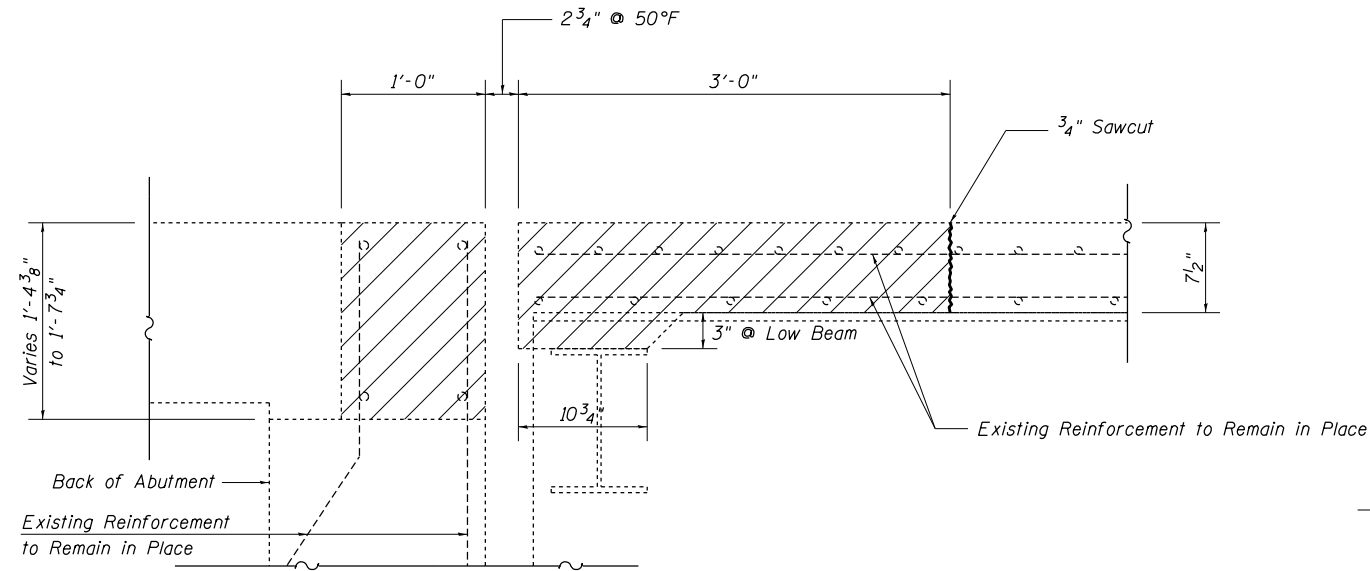
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EXPANSION JOINT REPLACEMENT DETAILS - PIER #3
SN. 096-0061

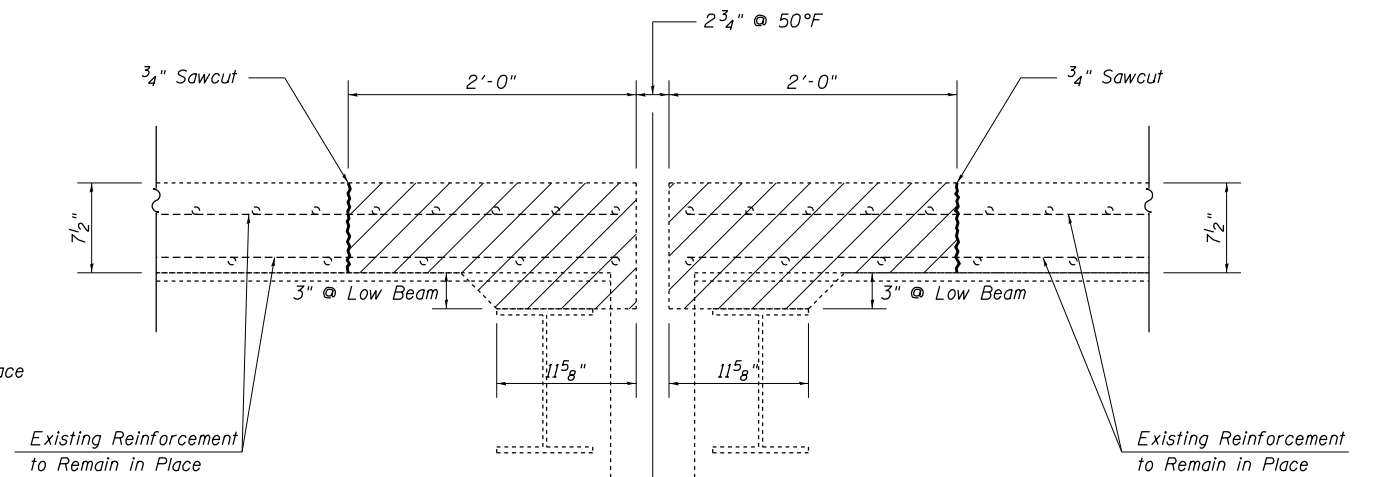
SCALE: N/A SHEET 28 OF 35 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
823	07 BRIDGE REPAIRS 2014-3	WAYNE	60	49
CONTRACT NO. 74618			ILLINOIS FED. AID PROJECT	

Hatching indicates Concrete Removal.

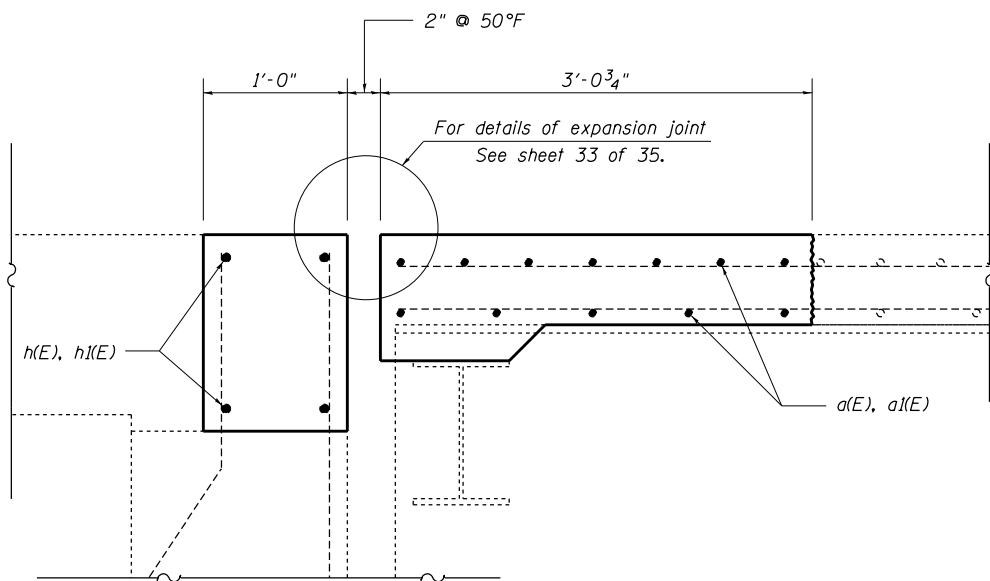


SECTION A-A
(Dimensions at Rt. L's to end of deck)

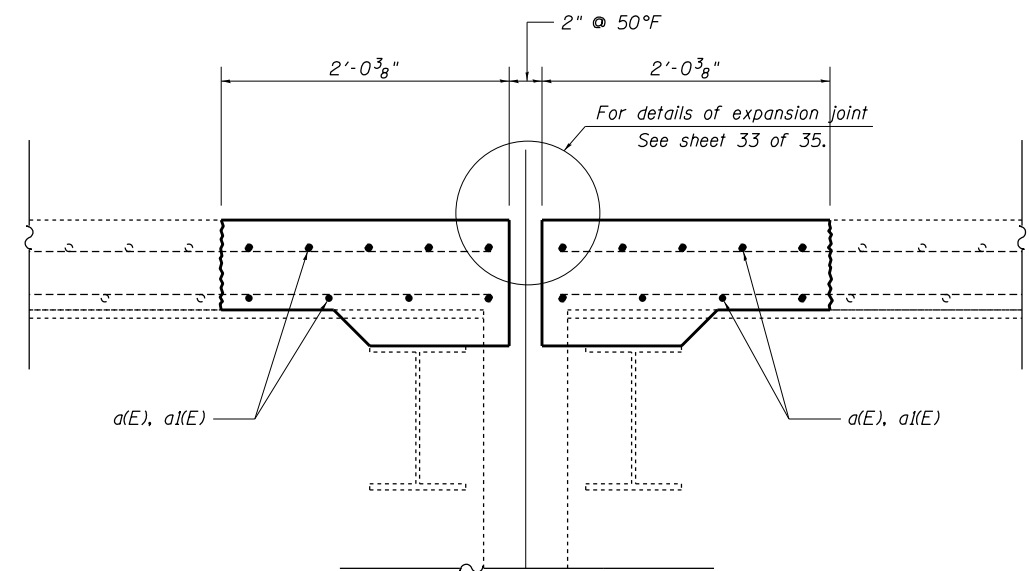


SECTION C-C
(Dimensions at Rt. L's to end of deck)

- Existing Reinforcement
- Proposed Reinforcement

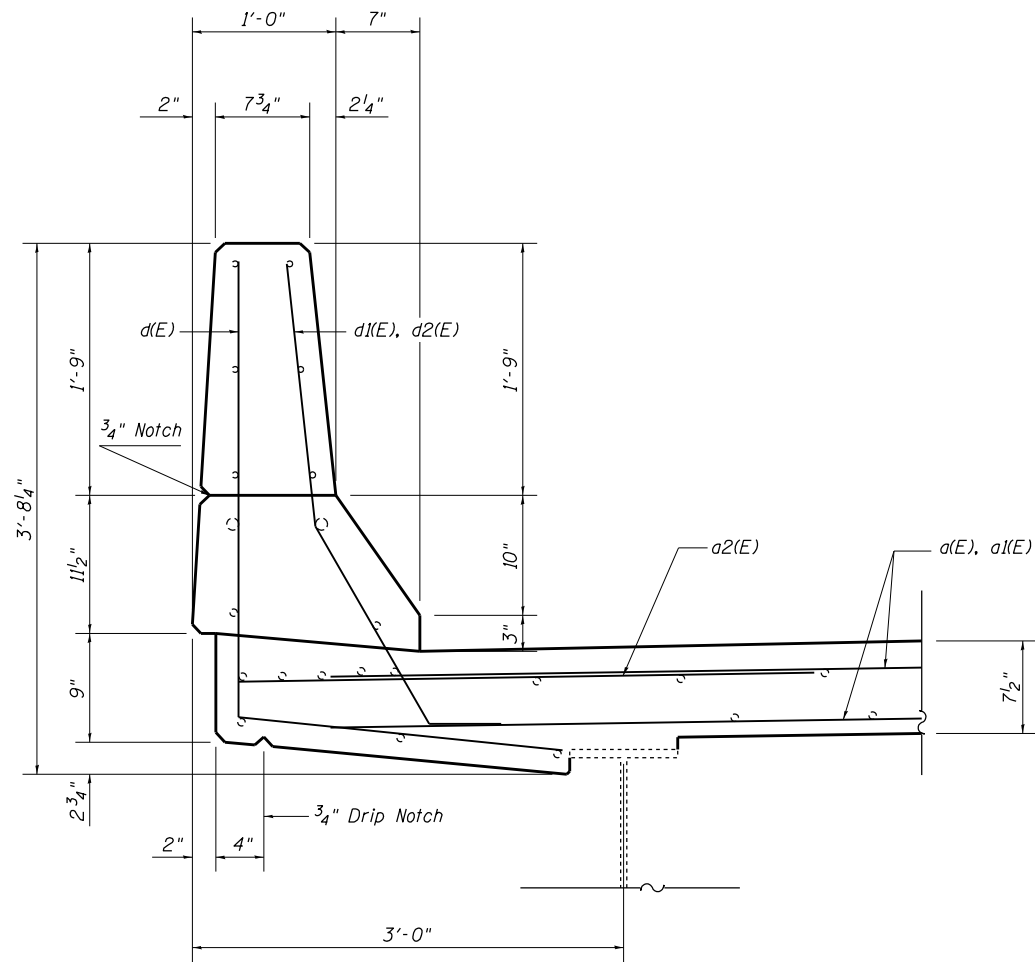


SECTION B-B
(Dimensions at Rt. L's to end of deck)

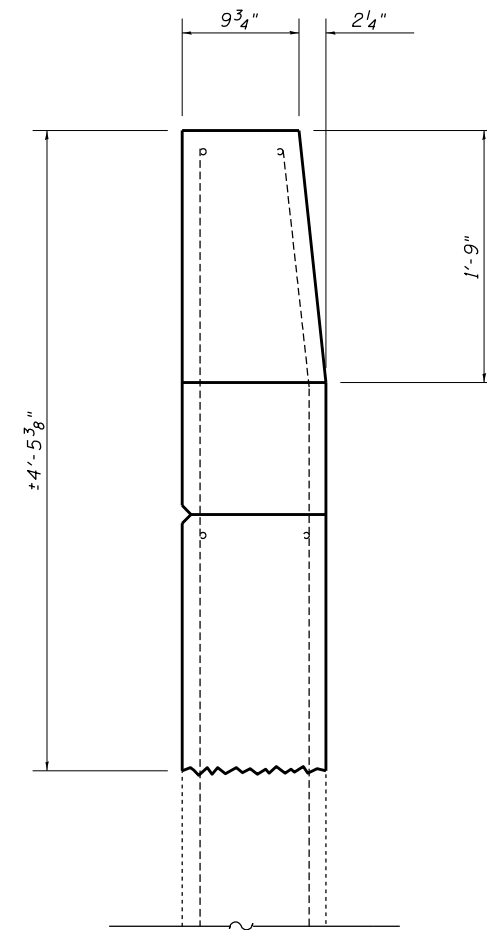


SECTION D-D
(Dimensions at Rt. L's to end of deck)

FILE NAME =	USER NAME = steffenmk	DESIGNED - KLB	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	EXPANSION JOINT REPLACEMENT DETAILS SN. 096-0061	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
c:\pwork\pwork\steflenmk\d0340638\074618-shr-brdtdetals-0960061.dgn	DRAWN - 06/25/2013	REVISED -	823			07 BRIDGE REPAIRS 2014-3	WAYNE	60	50	
Default	PLOT SCALE = 40.0000 ' / in.	CHECKED - MEA	REVISED -			CONTRACT NO. 74618				
	PLOT DATE = 12/6/2013	DATE - 08/13/2013	REVISED -			ILLINOIS FED. AID PROJECT				
						SCALE: N/A	SHEET 29	OF 35 SHEETS	STA.	TO STA.



SECTION THRU PARAPET



TYPICAL WINGWALL
REMOVAL AND REPLACEMENT

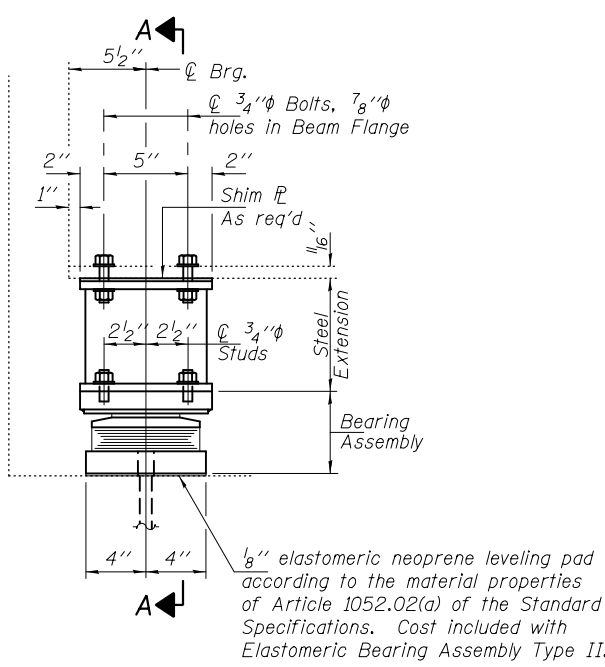
FILE NAME =	USER NAME = steffenmk	DESIGNED - KLB	REVISED -
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Default	PLOT SCALE = 40.0000' / in.	CHECKED - MEA	REVISED -
	PLOT DATE = 12/6/2013	DATE - 08/13/2013	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

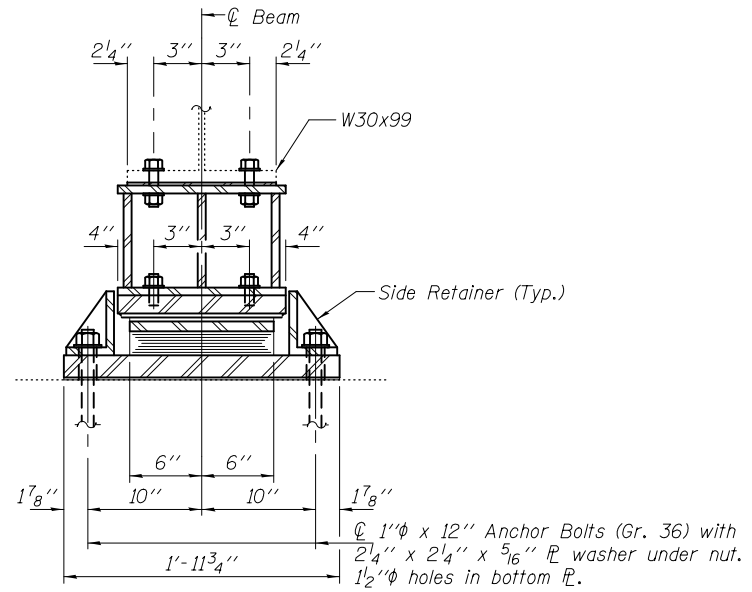
EXPANSION JOINT REPLACEMENT DETAILS
SN. 096-0061

SCALE: N/A SHEET 30 OF 35 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
823	D7 BRIDGE REPAIRS 2014-3	WAYNE	60	51
CONTRACT NO.			74618	
ILLINOIS FED. AID PROJECT				



ELEVATION AT ABUTMENT



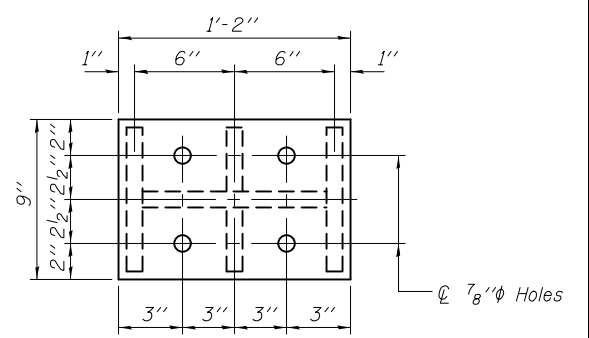
SECTION A-A

TYPE II TFE ELASTOMERIC EXP. BRG.

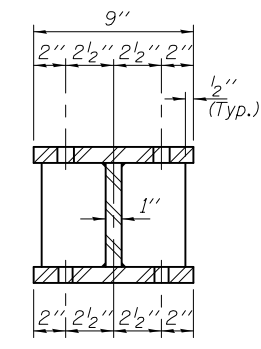
BEAM REACTIONS

R _L	(K)	22.7
R _T	(K)	42.9
Imp.	(K)	12.4
R (Total)	(K)	77.7

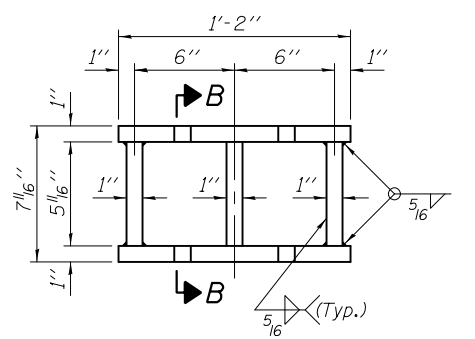
Notes:
 Diaphragm removal and reinstallation may be required to facilitate drilling holes. Cost included with Furnishing and Erecting Structural Steel.
 New steel extensions, shim plates and connection bolts are included with Furnishing and Erecting Structural Steel.
 Prior to ordering any material, the Contractor shall verify in the field all bearing height and shim thickness dimensions. Min. jack capacity = 40 Tons.
 Anchor bolts shall be ASTM F1554 all-thread (or an Engineer-approved alternate material) of the grade(s) and diameter(s) specified. ASTM A307 Grade C anchor bolts may be used in lieu of ASTM F1554 Grade 36 (F_y=36ksi). The corresponding specified grade of AASHTO M314 anchor bolts may be used in lieu of ASTM F1554.
 Anchor bolts for Type II bearings shall be placed in holes drilled through the bottom bearing plate after members are in place. Side retainers shall be placed after bolts are installed.
 Drilled and set anchor bolts shall be installed according to Article 521.06 of the Standard Specifications.
 Side retainers shall be included in the cost of Elastomeric Bearing Assembly, Type II.
 The 1/8" PTFE sheet shall be bonded directly to the top steel plate with a two-component, medium viscosity epoxy resin, conforming to the requirements of the Federal Specification MMM-A-134, Type I. The bond agent shall be applied on the full area of the contact surfaces.
 Bonding of 1/8" PTFE sheet during vulcanizing process will be permitted provided the process and method of adjusting assembly height is approved by the Engineer.



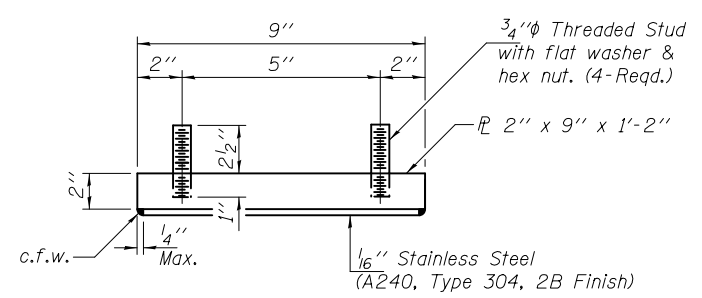
PLAN TOP AND BOTTOM PLATE



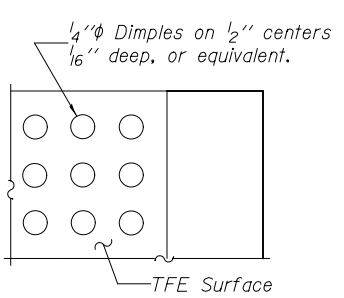
SECTION B-B



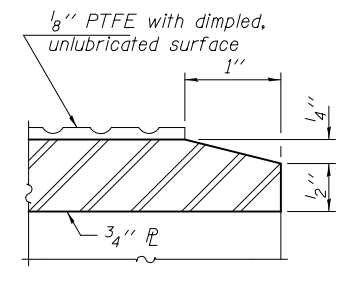
STEEL EXTENSION DETAIL



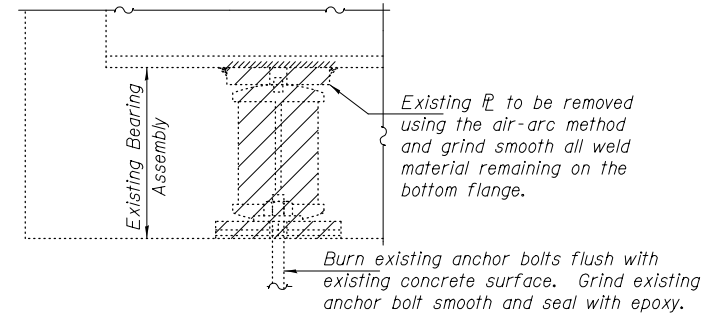
TOP BEARING ASSEMBLY
(Looking North)



PLAN-TFE SURFACE

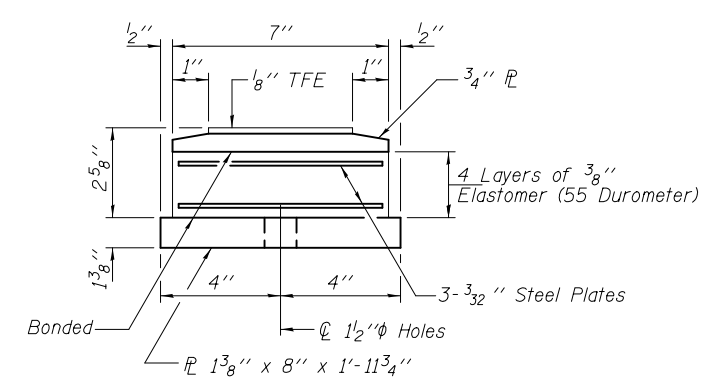


SECTION THRU TFE

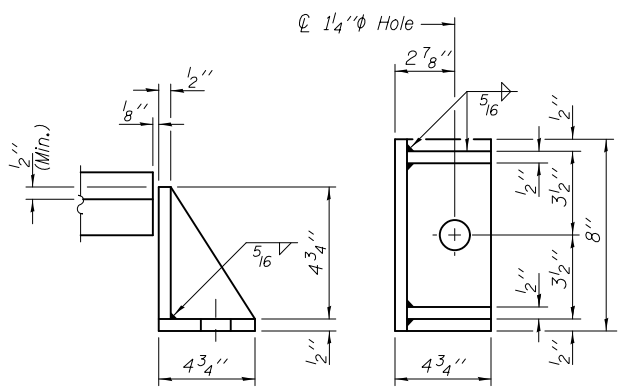


EXISTING BEARING REMOVAL DETAIL

Cost included with Jack and Remove Existing Bearings.

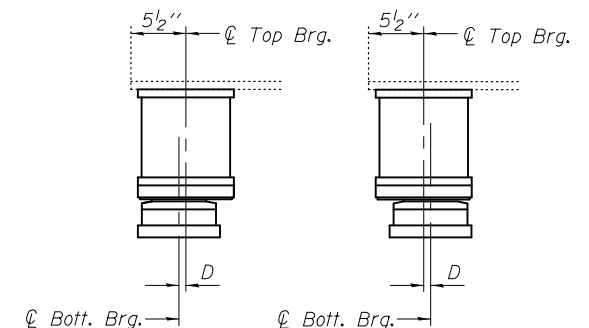


BOTTOM BEARING ASSEMBLY



SIDE RETAINER

Equivalent rolled angle with stiffeners will be allowed in lieu of welded plates.

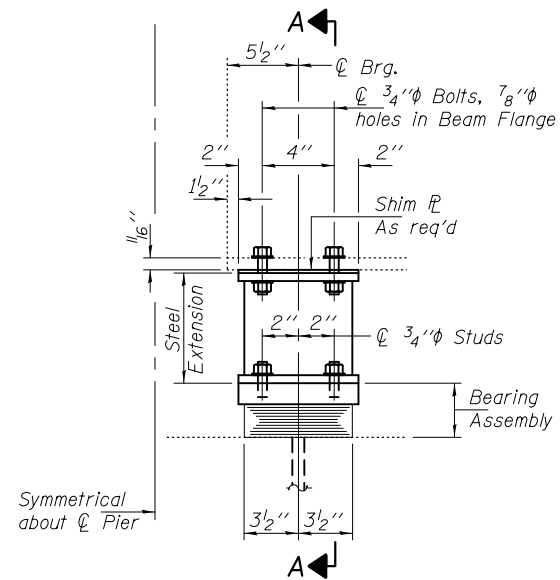


SETTING ANCHOR BOLTS AT EXP. BRG.

D = 1/8" per each 100' of expansion for every 15° temp. change from the normal temp. of 50°F.

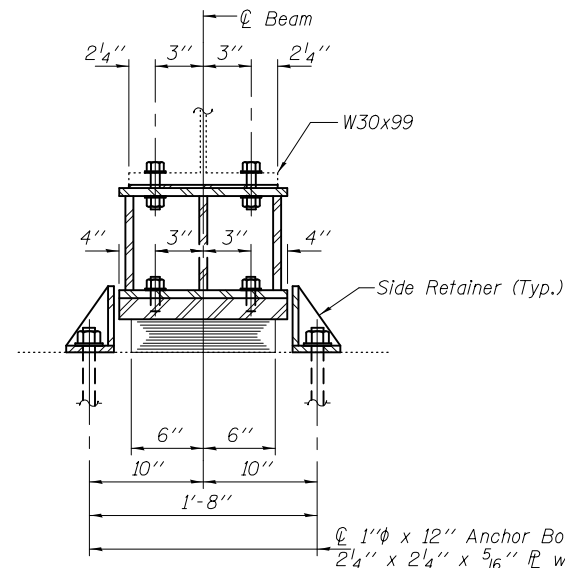
BILL OF MATERIAL

Item	Unit	Total
Elastomeric Bearing Assembly Type II	Each	10
Jack and Remove Existing Bearings	Each	10
Furnishing and Erecting Structural Steel	Pound	1150
Anchor Bolts 1"φ	Each	20



ELEVATION AT PIER 3

TYPE I ELASTOMERIC EXP. BRG.

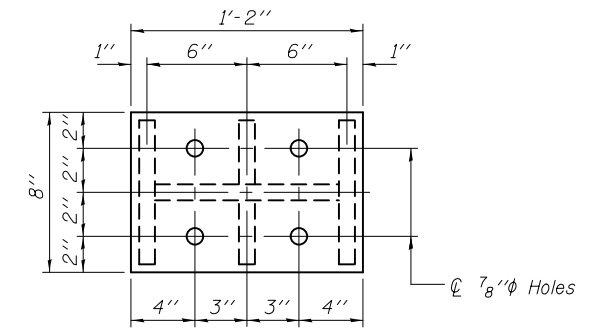


SECTION A-A

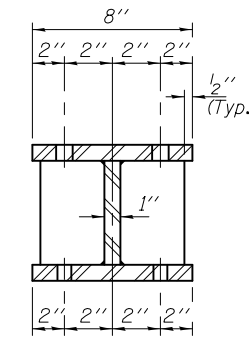
BEAM REACTIONS

R _L	(K)	22.7
R _T	(K)	42.9
Imp.	(K)	12.1
R (Total)	(K)	77.7

Notes:
 Diaphragm removal and reinstallation may be required to facilitate drilling holes. Cost included with Furnishing and Erecting Structural Steel.
 New steel extensions, shim plates and connection bolts are included with Furnishing and Erecting Structural Steel.
 Prior to ordering any material, the Contractor shall verify in the field all bearing height and shim thickness dimensions. Min. jack capacity = 40 Tons.
 Anchor bolts shall be ASTM F1554 all-thread (or an Engineer-approved alternate material) of the grade(s) and diameter(s) specified. ASTM A307 Grade C anchor bolts may be used in lieu of ASTM F1554 Grade 36 (F_y=36ksi). The corresponding specified grade of AASHTO M314 anchor bolts may be used in lieu of ASTM F1554.
 Anchor bolts at fixed bearings may be either cast in place or installed in holes drilled after the supported member is in place.
 Drilled and set anchor bolts shall be installed according to Article 521.06 of the Standard Specifications.
 Side retainers shall be included in the cost of Elastomeric Bearing Assembly, Type I.

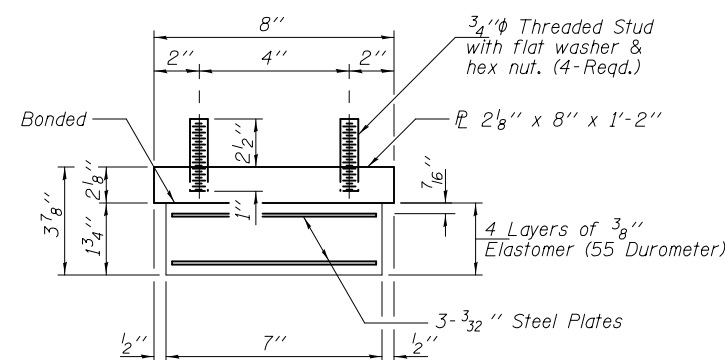


PLAN TOP AND BOTTOM PLATE



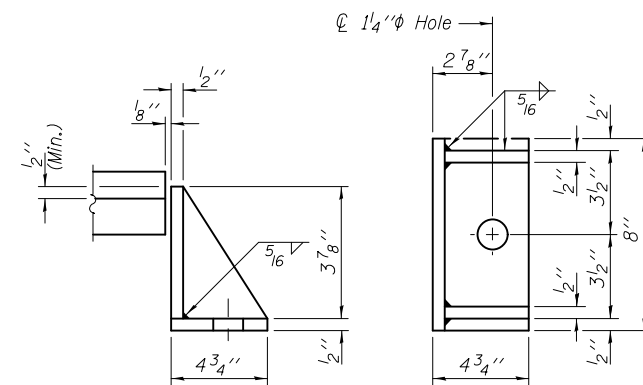
SECTION B-B

STEEL EXTENSION DETAIL



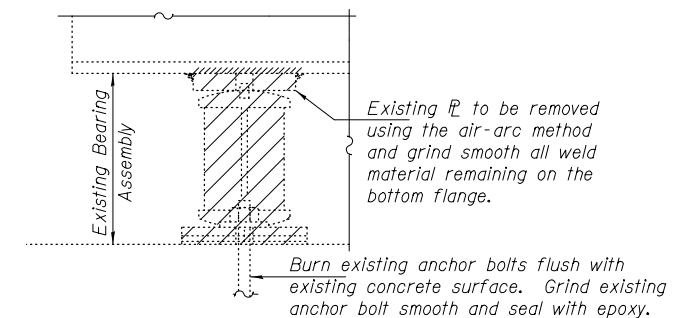
BEARING ASSEMBLY

Note:
 Shim plates shall not be placed under Bearing Assembly.



SIDE RETAINER

Equivalent rolled angle with stiffeners will be allowed in lieu of welded plates.



EXISTING BEARING REMOVAL DETAIL

Cost included with Jack and Remove Existing Bearings.

BILL OF MATERIAL

Item	Unit	Total
Elastomeric Bearing Assembly Type I	Each	10
Jack and Remove Existing Bearings	Each	10
Furnishing and Erecting Structural Steel	Pound	1360
Anchor Bolts 1"φ	Each	20

TYI/REPS 12-03-2008

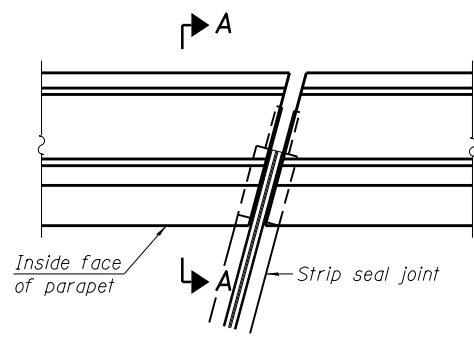
DESIGNED VHV	EXAMINED	DATE - JANUARY 22, 2014
CHECKED DAB	<i>Timothy A. Daulton</i> ACTING ENGINEER OF STRUCTURAL SERVICES	
DRAWN baliva	PASSED	
CHECKED VHV DAB	<i>Carl Berger</i> ACTING ENGINEER OF BRIDGES AND STRUCTURES	

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

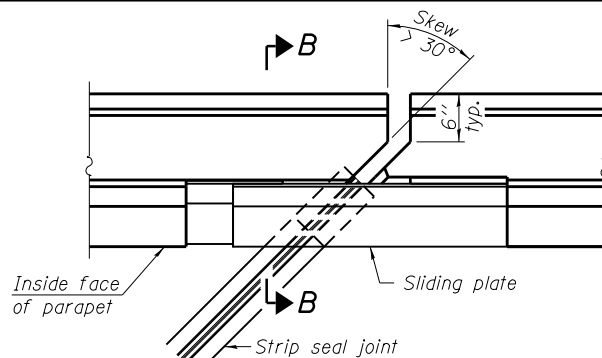
PIER 3 BEARING REPLACEMENT DETAILS
 SN 096-0061

SHEET NO. 32 OF 35 SHEETS

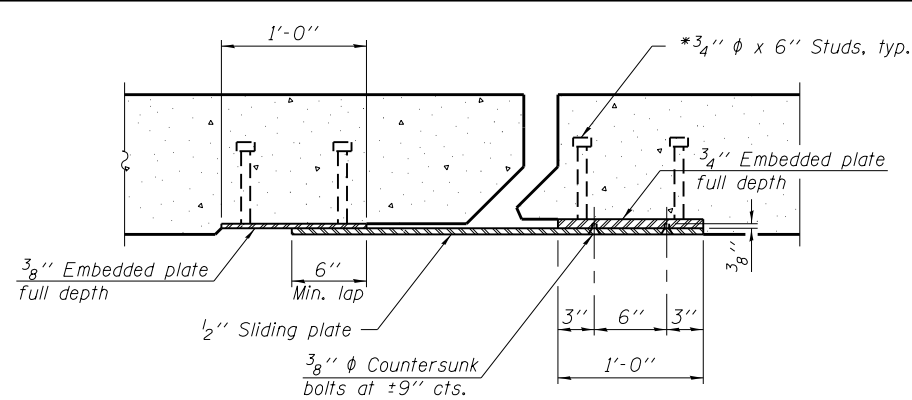
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
823	D7 BRIDGE REPAIRS 2014-3	WAYNE	60	53
			CONTRACT NO. 74618	
ILLINOIS FED. AID PROJECT				



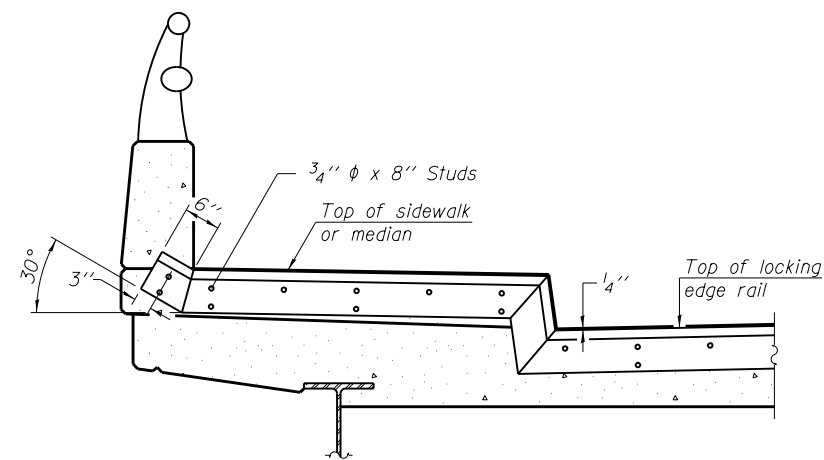
PLAN
(For skews $\leq 30^\circ$)



PLAN
(For skews $> 30^\circ$)
Showing point block

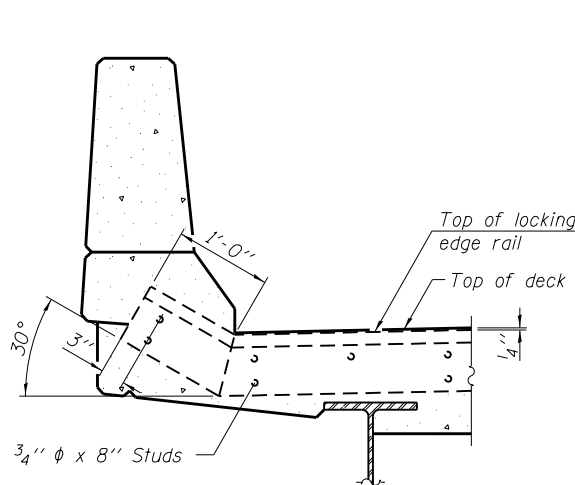


SECTION C-C

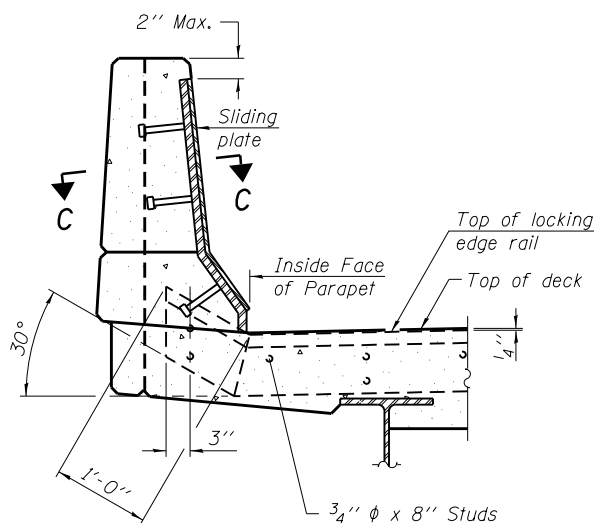


TYPICAL END TREATMENT AT SIDEWALK OR MEDIAN

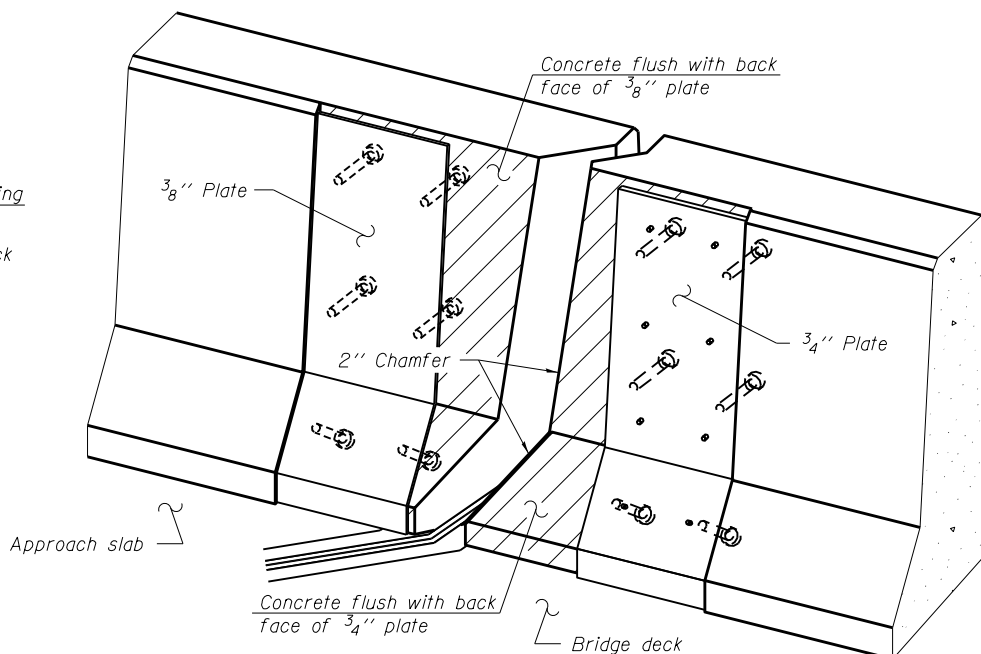
Shorter plates with a single row of studs at 12" cts. may be necessary on medians which are shallower than 9". See manufacturer's recommendation.



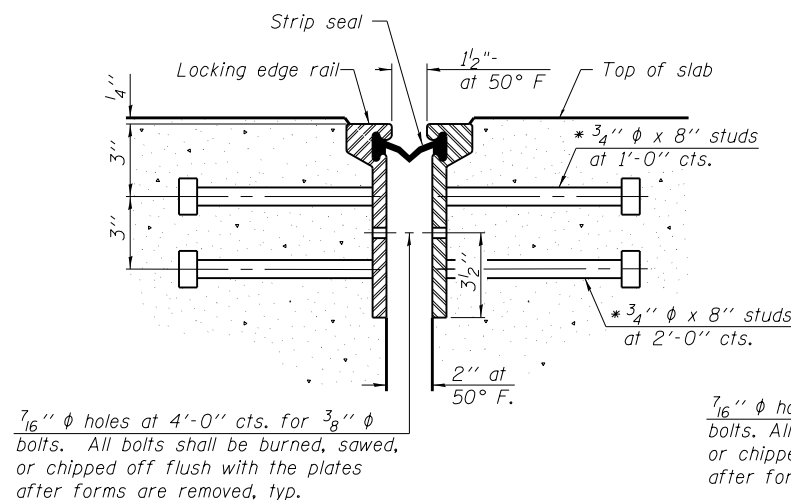
SECTION A-A



SECTION B-B

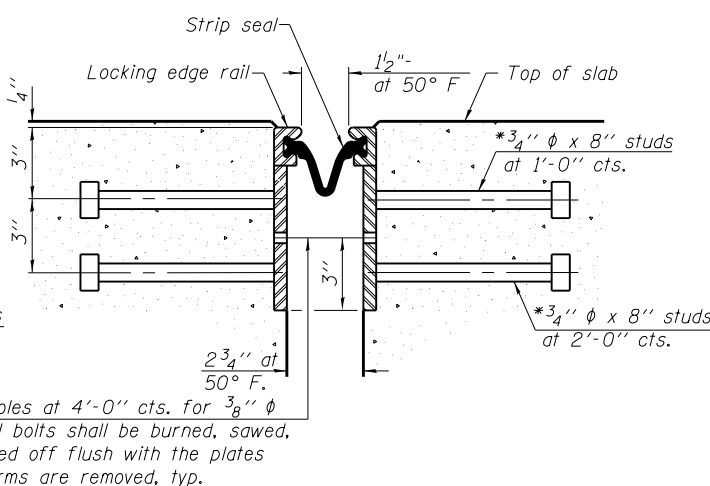


TRIMETRIC VIEW
(Showing back plates only)



SECTION THRU ROLLED RAIL JOINT

$7/16"$ ϕ holes at 4'-0" cts. for $3/8"$ ϕ bolts. All bolts shall be burned, sawed, or chipped off flush with the plates after forms are removed, typ.



SECTION THRU WELDED RAIL JOINT

$7/16"$ ϕ holes at 4'-0" cts. for $3/8"$ ϕ bolts. All bolts shall be burned, sawed, or chipped off flush with the plates after forms are removed, typ.

* Granular or solid flux filled headed studs conforming to Article 1006.32 of the Std. Specs., automatically end welded.

ROLLED EXTRUDED RAIL

WELDED RAIL

LOCKING EDGE RAIL SPLICE

The inside of the locking edge rail groove shall be free of weld residue.
Rolled rail shown, welded rail similar.

LOCKING EDGE RAILS

BILL OF MATERIAL

Item	Unit	Total
Preformed Joint Strip Seal	Foot	104.5

EJ-SSJ

1-27-12

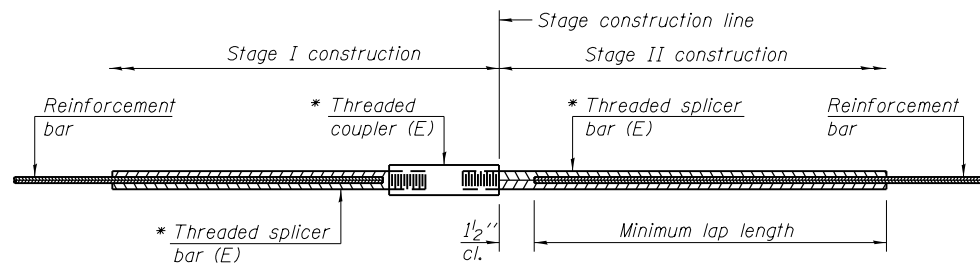
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ei:\pwwork\pwwork\steffennk\d0340638\074618-sh-t-brd\details-0960061.dgn		DRAWN - 06/25/2013	REVISED -
Default	PLOT SCALE = 48.0000' / in.	CHECKED - MEA	REVISED -
	PLOT DATE = 12/6/2013	DATE - 08/13/2013	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PREFORMED JOINT STRIP SEAL
STRUCTURE NO. 096-0061

SCALE: N/A SHEET 33 OF 35 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
823	07 BRIDGE REPAIRS 2014-3	WAYNE	60	54
CONTRACT NO.			74618	
ILLINOIS FED. AID PROJECT				



STANDARD BAR SPLICER ASSEMBLY

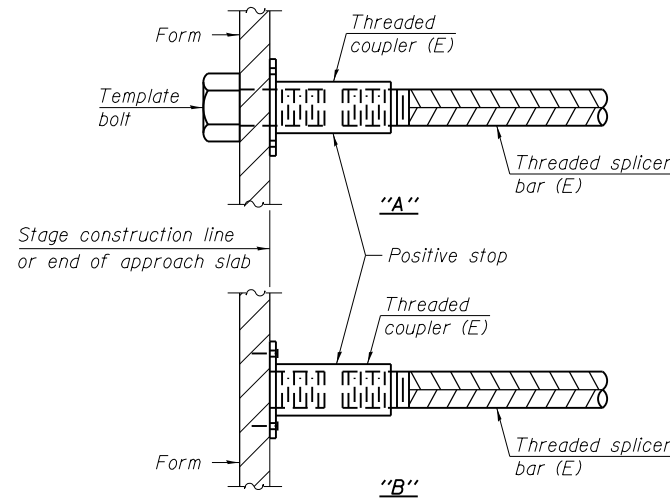
Bar size to be spliced	Minimum Lap Lengths					
	Table 1	Table 2	Table 3	Table 4	Table 5	Table 6
3, 4	1'-5"	1'-11"	2'-1"	2'-4"	2'-7"	2'-11"
5	1'-9"	2'-5"	2'-7"	2'-11"	3'-3"	3'-8"
6	2'-1"	2'-11"	3'-1"	3'-6"	3'-10"	4'-5"
7	2'-9"	3'-10"	4'-2"	4'-8"	5'-2"	5'-10"
8	3'-8"	5'-1"	5'-5"	6'-2"	6'-9"	7'-8"
9	4'-7"	6'-5"	6'-10"	7'-9"	8'-7"	9'-8"

- Table 1: Black bar, 0.8 Class C
- Table 2: Black bar, Top bar lap, 0.8 Class C
- Table 3: Epoxy bar, 0.8 Class C
- Table 4: Epoxy bar, Top bar lap, 0.8 Class C
- Table 5: Epoxy bar, Class C
- Table 6: Epoxy bar, Top bar top, Class C

Threaded splicer bar length = min. lap length + 1/2" + thread length

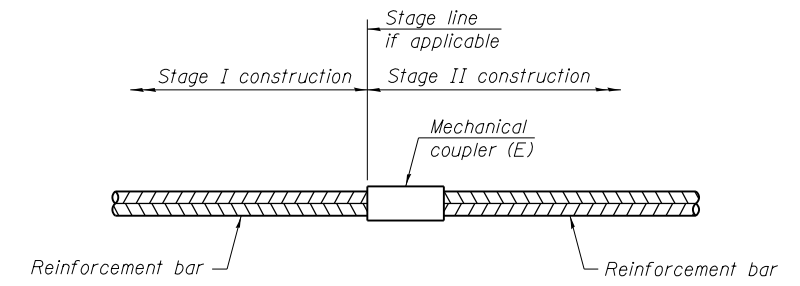
* Epoxy not required on Bar Splicer Assembly components used in conjunction with black bars.

Location	Bar size	No. assemblies required	Table for minimum lap length
Abutments	#5	24	Table 3
Abutments	#6	8	Table 3
Pier #3	#5	18	Table 3



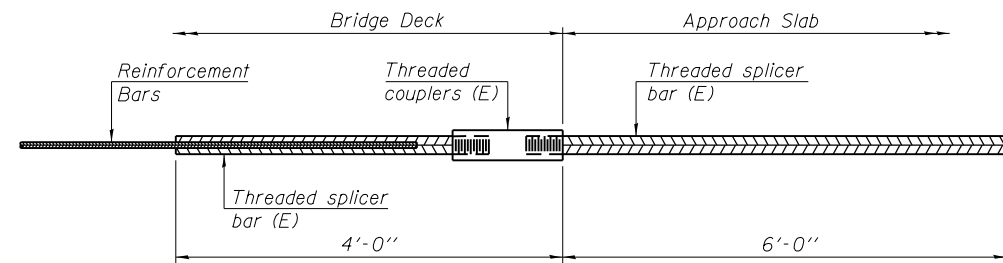
INSTALLATION AND SETTING METHODS

"A" : Set bar splicer assembly by means of a template bolt.
 "B" : Set bar splicer assembly by nailing to wood forms or cementing to steel forms.
 (E) : Indicates epoxy coating.



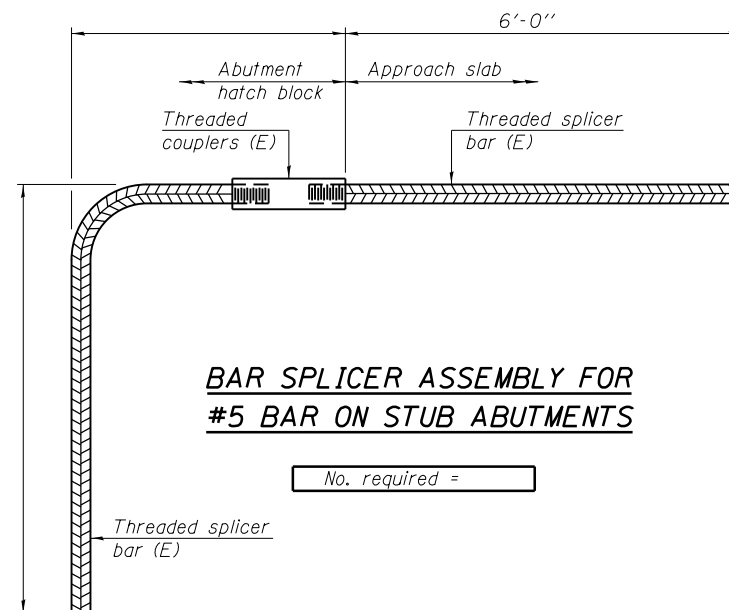
STANDARD MECHANICAL SPLICER

Location	Bar size	No. assemblies required



BAR SPLICER ASSEMBLY FOR #5 BAR ON INTEGRAL OR SEMI-INTEGRAL ABUTMENTS

No. required =



BAR SPLICER ASSEMBLY FOR #5 BAR ON STUB ABUTMENTS

No. required =

NOTES

Splicer bars shall be deformed with threaded ends and have a minimum 60 ksi yield strength.
 All reinforcement shall be lapped and tied to the splicer bars.
 Bar splicer assemblies shall be epoxy coated according to the requirements for reinforcement bars. See Section 508 of the Standard Specifications.
 See approved list of bar splicer assemblies and mechanical splicers for alternatives.

BSD-1

1-27-12

FILE NAME =	USER NAME = steffennk	DESIGNED - KLB	REVISED -
		DRAWN - 06/25/2013	REVISED -
		CHECKED - MEA	REVISED -
		DATE - 08/13/2013	REVISED -

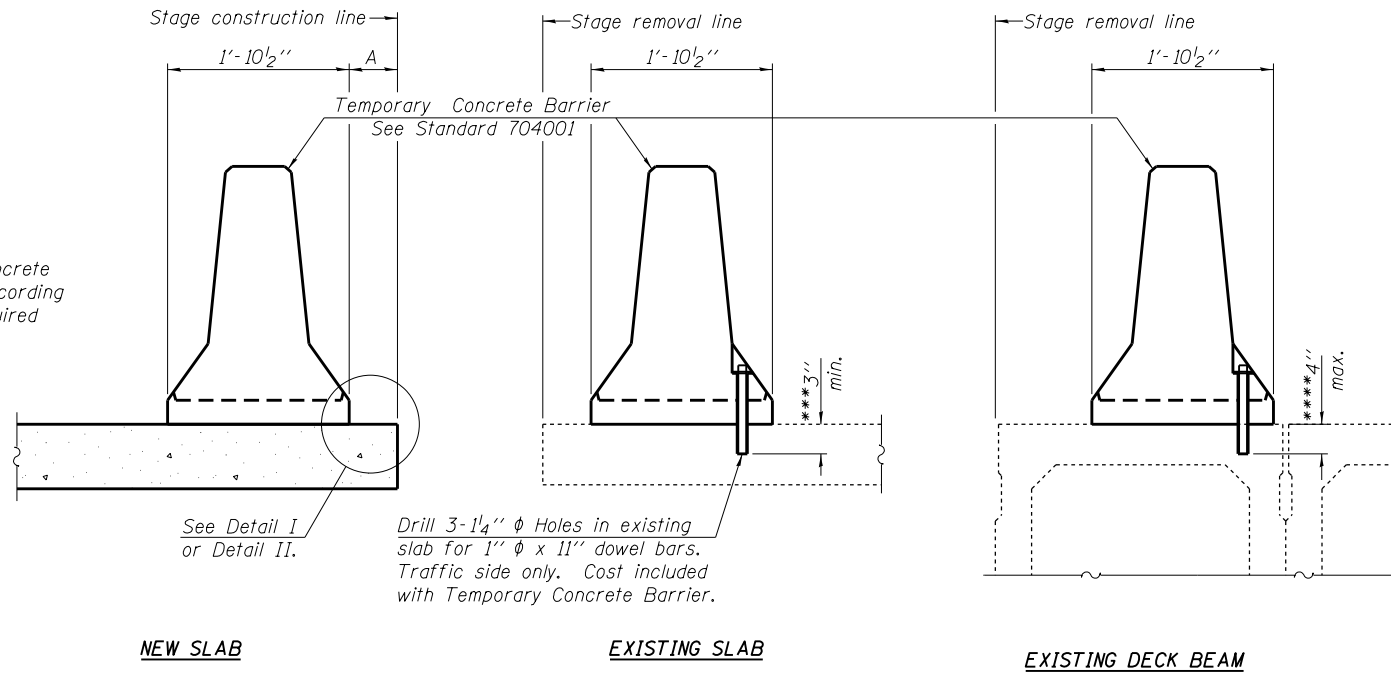
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

BAR SPLICER ASSEMBLY AND MECHANICAL SPLICER DETAILS
STRUCTURE NO. 096-0061

SCALE: N/A SHEET 34 OF 35 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
823	07 BRIDGE REPAIRS 2014-3	WAYNE	60	55
CONTRACT NO.			74618	
ILLINOIS FED. AID PROJECT				

When "A" is 3'-6" or less, the temporary concrete barrier shall be anchored to the new slab according to Detail I or Detail II. No anchorage is required when "A" is greater than 3'-6".



SECTIONS THRU SLAB OR DECK BEAM

NOTES

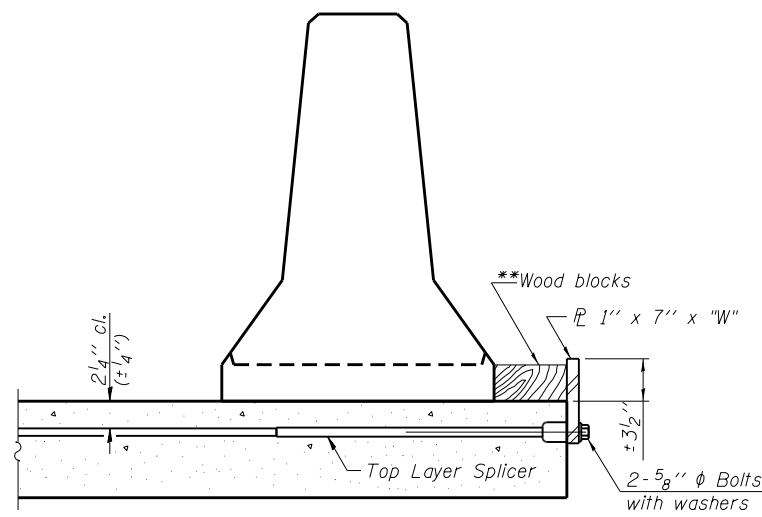
Detail I - With Bar Splicer or Couplers:
Connect one (1) 1" x 7" x "W" steel PL to the top layer of couplers with 2-5/8" φ bolts screwed to coupler at approximate C of each barrier panel.

Detail II - With Extended Reinforcement Bars:
Connect one (1) 1" x 7" x "W" steel PL to the concrete slab or concrete wearing surface with 2-5/8" φ Expansion Anchors or cast in place inserts spaced between the top layer of reinforcement at approximate C of each barrier panel.

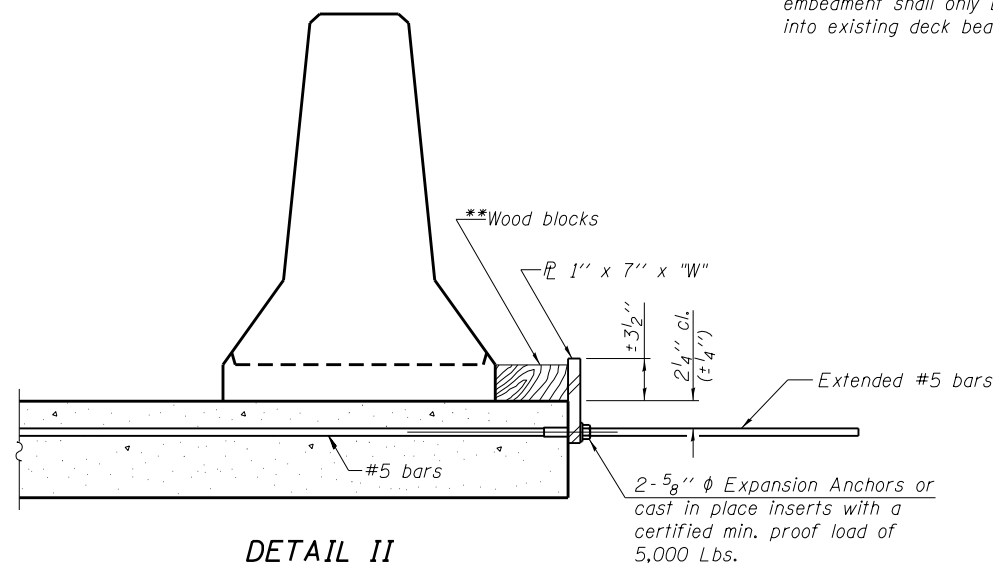
Cost of anchorage is included with Temporary Concrete Barrier. The 1" x 7" x "W" plate shall not be removed until stage II construction forms and all reinforcement bars are in place and the concrete is ready to be placed.

*** Dimension shown is minimum required embedment into concrete. If hot-mix asphalt wearing surface is present, minimum embedment shall be in addition to wearing surface depth.

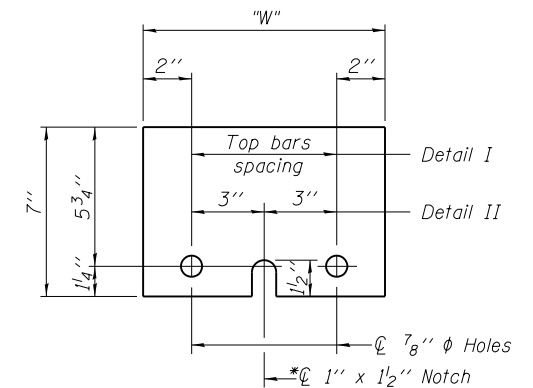
**** If existing deck beam is to remain in place after stage construction, embedment shall only be into wearing surface and not into existing deck beam concrete.



DETAIL I



DETAIL II



STEEL RETAINER PL 1" x 7" x "W"

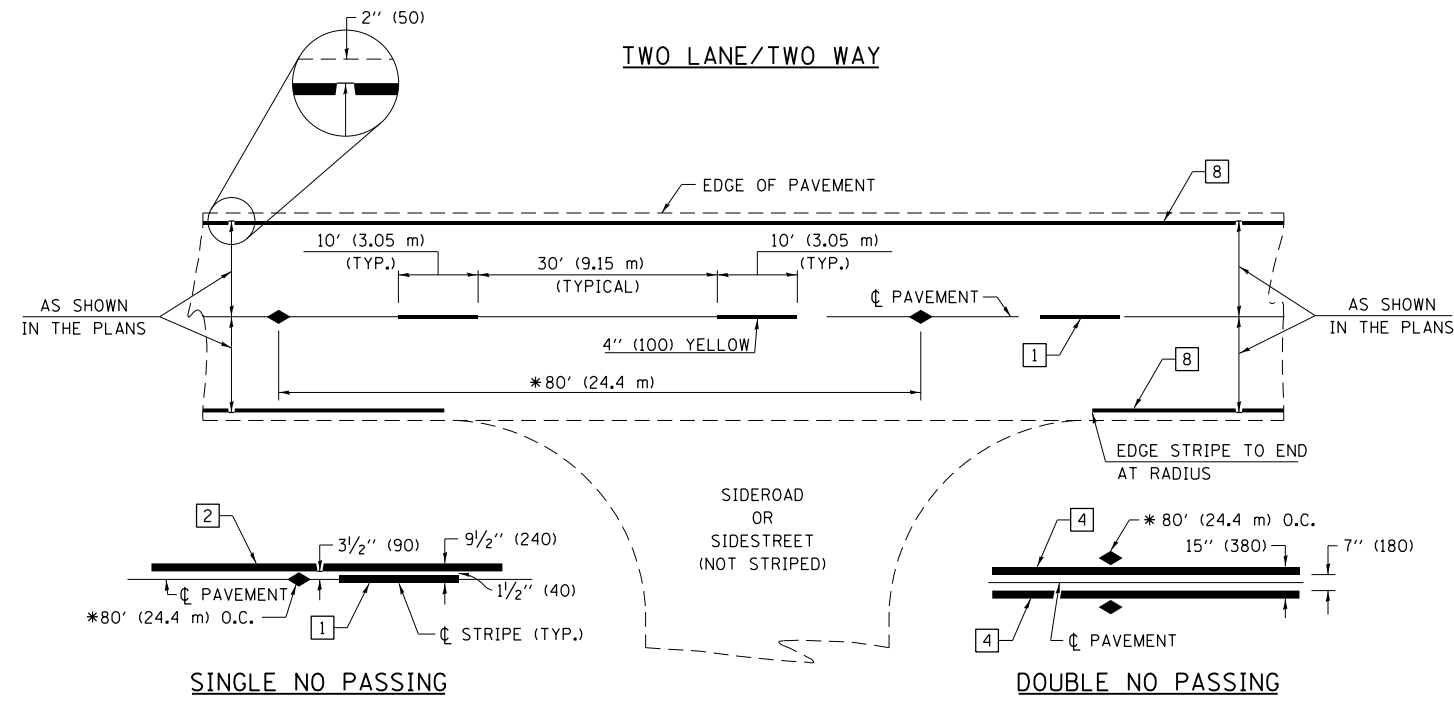
* Required only with Detail II

** Wood blocks may be omitted when required to provide minimum stage traffic lane width. When the wood blocks are omitted, the concrete barrier shall be in direct contact with the steel retainer plate.

"W" = Top bars spacing + 4"

R-27 7-1-10

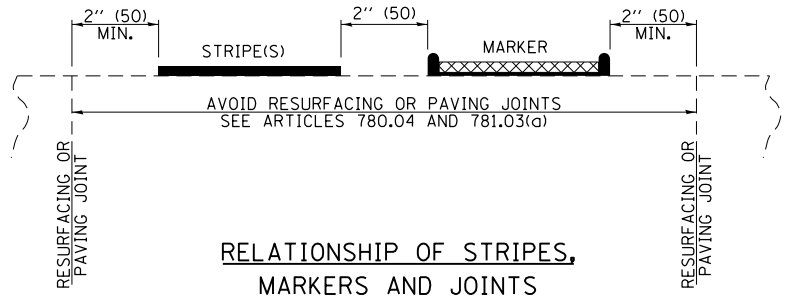
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	PLOT SCALE = 40.0000' / in.	CHECKED - MEA	REVISED -				SCALE: N/A	SHEET 35 OF 35 SHEETS	STA. TO STA.	ILLINOIS FED. AID PROJECT	
Default	PLOT DATE = 12/6/2013	DATE - 08/13/2013	REVISED -					CONTRACT NO. 74618			



* REDUCE TO 40' (12.2 m) O.C. ON CURVES WITH POSTED OR ADVISORY SPEEDS OF 45 mph (70 km/h) OR LESS.

PAVEMENT MARKING LEGEND

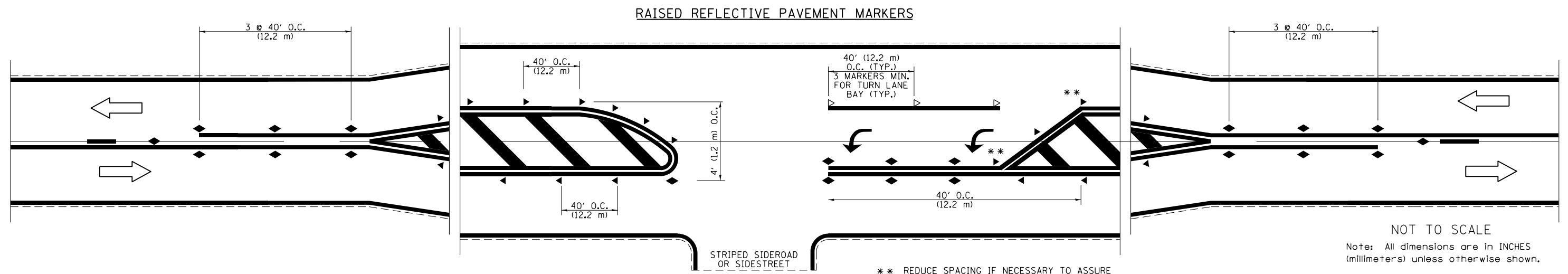
- 1 4" (100) SKIP-DASH (YELLOW)
- 2 4" (100) SOLID (YELLOW)
- 3 12" (300) DIAGONAL (YELLOW)
- 4 4" (100) DOUBLE YELLOW (NARROW)
- 5 12" (300) SOLID WHITE
- 6 RESERVED
- 7 6" (150) SKIP-DASH (WHITE)
- 8 4" (100) SOLID (WHITE)
- 9 12" (300) DIAGONAL (WHITE)
- 10 6" (150) SOLID (WHITE)
- 11 24" (600) STOP BAR (WHITE)
- 12 8" (200) SOLID (WHITE)
- 13 4" (100) PARKING WHITE



RELATIONSHIP OF STRIPES, MARKERS AND JOINTS

TYPICAL PAVEMENT MARKERS LEGEND

- ◆ TWO-WAY AMBER MARKER
- ▶ ONE-WAY AMBER MARKER
- ▷ ONE-WAY CRYSTAL MARKER



** REDUCE SPACING IF NECESSARY TO ASSURE MARKERS AT CORNER POINTS.

NOT TO SCALE
Note: All dimensions are in INCHES (millimeters) unless otherwise shown.

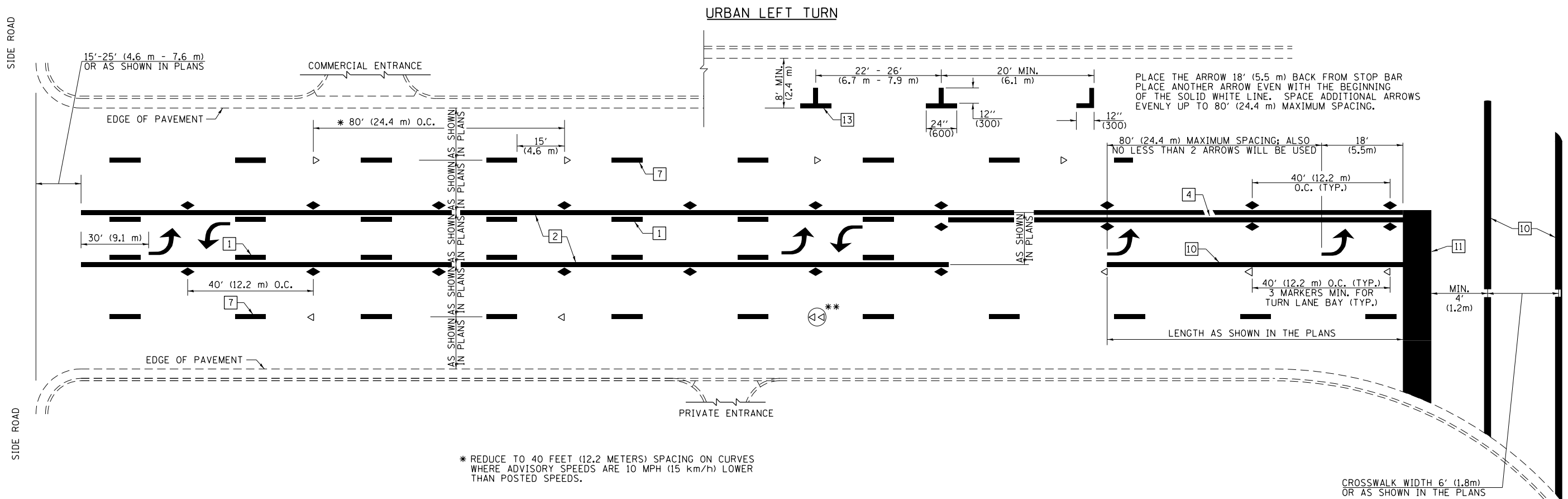
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	PLOT DATE = 12/6/2013	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PAVEMENT MARKING AND RAISED REFLECTIVE PAVEMENT MARKERS
(RURAL & URBAN APPLICATIONS)

SCALE: SHEET NO. 1 OF 4 SHEETS STA. TO STA.

DISTRICT 7 DETAIL NO. 78000001				
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
823	07 BRIDGE REPAIRS 2014-3	WAYNE	60	57
CONTRACT NO. 74618				
ILLINOIS FED. AID PROJECT				



PLACE THE ARROW 18' (5.5 m) BACK FROM STOP BAR
 PLACE ANOTHER ARROW EVEN WITH THE BEGINNING
 OF THE SOLID WHITE LINE. SPACE ADDITIONAL ARROWS
 EVENLY UP TO 80' (24.4 m) MAXIMUM SPACING.

* REDUCE TO 40 FEET (12.2 METERS) SPACING ON CURVES
 WHERE ADVISORY SPEEDS ARE 10 MPH (15 km/h) LOWER
 THAN POSTED SPEEDS.

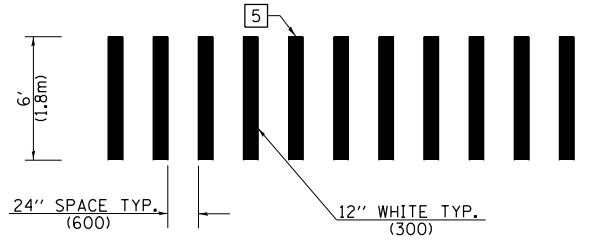
** DOUBLE LANE LINE MARKERS SHALL BE SPECIFIED
 AND SPACED AS SHOWN IN HIGHWAY STANDARD
 781001 FOR MULTI-LANE DIVIDED AND UNDIVIDED
 HIGHWAYS.

PAVEMENT MARKING LEGEND

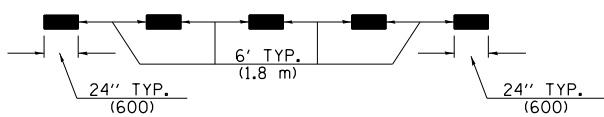
- 1 4" (100) SKIP-DASH (YELLOW)
- 2 4" (100) SOLID (YELLOW)
- 3 12" (300) DIAGONAL (YELLOW)
- 4 4" (100) DOUBLE YELLOW (NARROW)
- 5 12" (300) SOLID WHITE
- 6 RESERVED
- 7 6" (150) SKIP-DASH (WHITE)
- 8 4" (100) SOLID (WHITE)
- 9 12" (300) DIAGONAL (WHITE)
- 10 6" (150) SOLID (WHITE)
- 11 24" (600) STOP BAR (WHITE)
- 12 8" (200) SOLID (WHITE)
- 13 4" (100) PARKING WHITE

GENERAL NOTES

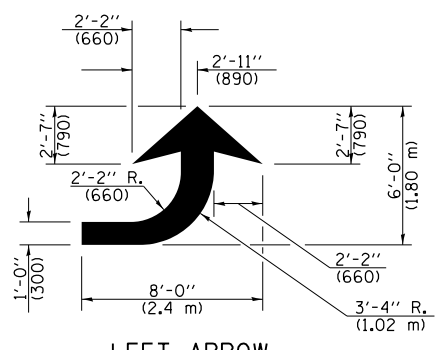
1. TURN ARROW PAIRS SHALL BE PLACED AT 250' (75 m) INTERVALS AND SHALL BE EVENLY SPACED BETWEEN BOTH ENDS OF THE BIDIRECTIONAL LEFT TURN LANE. USE A MINIMUM OF TWO PAIRS PER BLOCK.
2. THE SOLID YELLOW PAVEMENT MARKINGS [2] SHOULD GENERALLY START OR END NEAR THE RADIUS POINT OF EACH STREET RETURN EXCEPT WHERE ONE OR BOTH ENDS WOULD INCLUDE STOP BARS.
3. THE SKIP-DASH PAVEMENT MARKINGS [1] OR [7] SHOULD BE CENTERED BETWEEN BOTH ENDS OF EACH CITY BLOCK AND SHALL BE PLACED SO THEY LINE UP ACROSS FROM EACH OTHER.
4. USE LARGE ARROW SIZE FOR BOTH RURAL AND URBAN LOCATIONS. (SEE LAST PAGE OF SECTION 780x FOR SYMBOLS TABLE)
5. LANE LINE EXTENSIONS SHALL BE THE SAME COLOR AND WIDTH AS THE LANE LINE BEING EXTENDED.



**CROSSWALK DETAIL
 (DECATUR CITY LIMITS ONLY)**

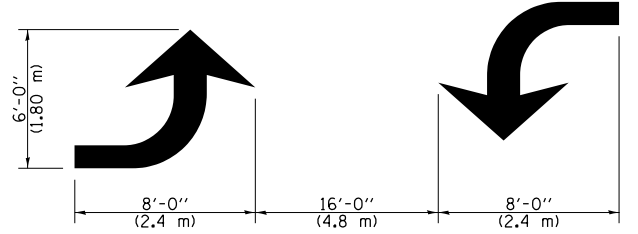


LANE LINE EXTENSIONS



LEFT ARROW

REVERSE FOR RIGHT ARROW
 AREA = 15.6 SQ. FT. (1.47 m²)
 (WHITE)



**TYPICAL DOUBLE
 TURN ARROWS (WHITE)**

NOT TO SCALE

Note: All dimensions are in INCHES
 (millimeters) unless otherwise shown.

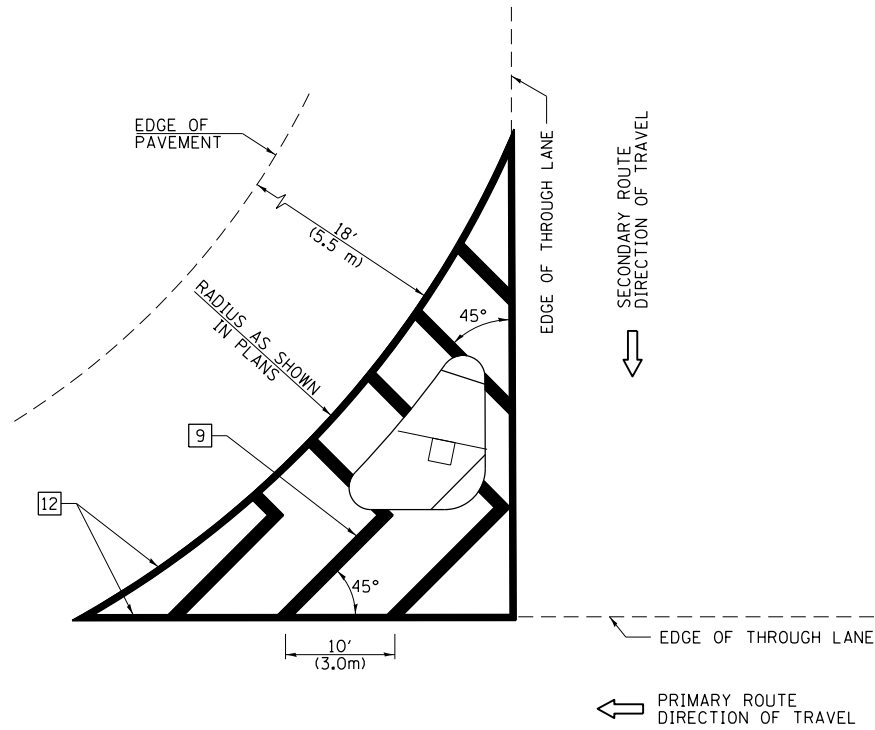
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		CHECKED -	REVISED -
		DATE -	REVISED -

**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

PAVEMENT MARKING AND RAISED REFLECTIVE PAVEMENT MARKERS (RURAL & URBAN APPLICATIONS)			
SCALE:	SHEET NO. 2 OF 4 SHEETS	STA.	TO STA.

DISTRICT 7 DETAIL NO. 78000001				
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
823	07 BRIDGE REPAIRS 2014-3	WAYNE	60	58
CONTRACT NO. 74618				
ILLINOIS FED. AID PROJECT				

ISLAND

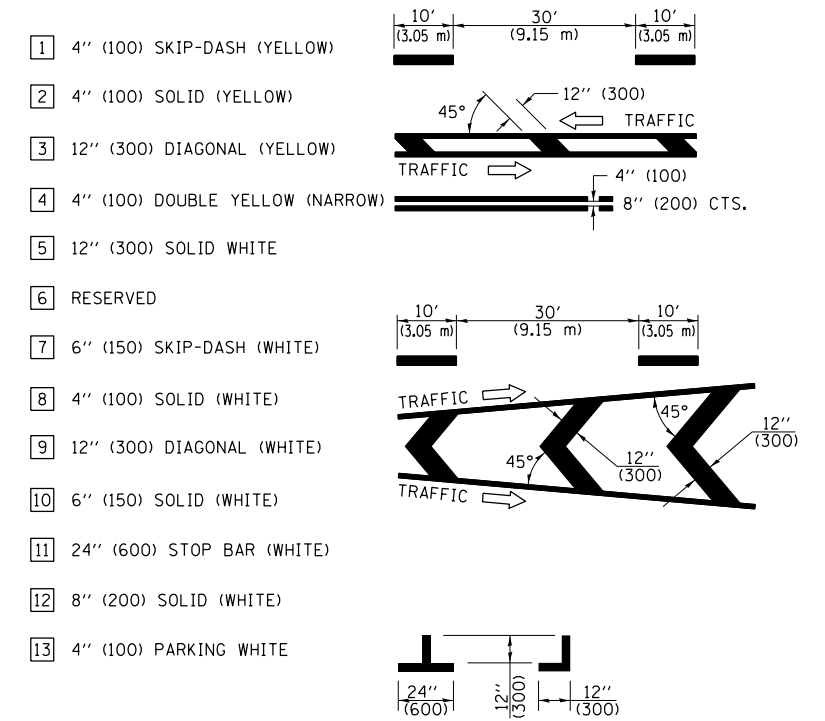


GENERAL NOTES

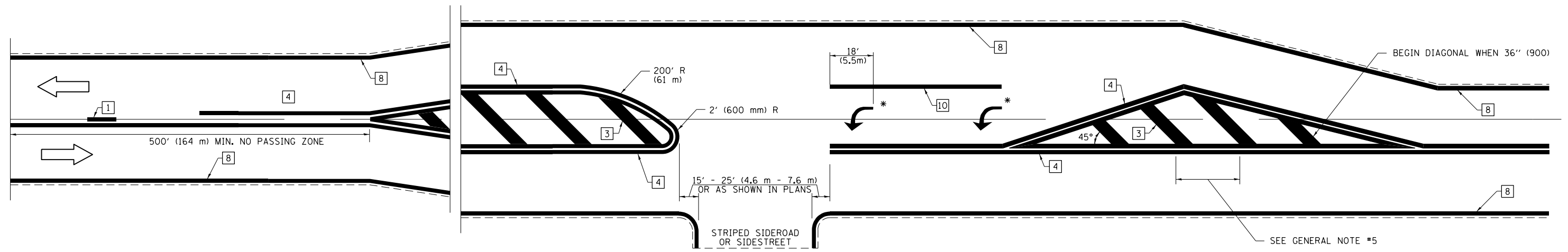
1. RAISED AND CORRUGATED MEDIANS SHALL BE OUTLINED WITH [2] IF PRESENT.
2. SOME OF THE INFORMATION INCLUDED WITH THIS DETAIL MAY NOT BE APPLICABLE TO THIS IMPROVEMENT.
3. PAVEMENT MARKINGS ARE TO BE EXTENDED THROUGH OMISSIONS WHEN APPLICABLE.
4. FINAL PAVEMENT MARKINGS SHALL BE IN PLACE PRIOR TO PLACING ANY RAISED REFLECTIVE PAVEMENT MARKERS.
5. THE FOLLOWING CRITERIA SHALL BE USED FOR SELECTING THE DIAGONAL PAVEMENT MARKING SPACING:

< 30 MPH (< 50 km/h)	15' (4.5 m)
30-45 MPH (50-75 km/h)	20' (6.0 m)
> 45 MPH (> 75 km/h)	30' (9.0 m)

PAVEMENT MARKING LEGEND



RURAL LEFT TURN STRIPING



* PLACE AN ARROW 18' (5.5 m) BACK FROM STOP BAR. PLACE ANOTHER ARROW EVEN WITH THE BEGINNING OF THE SOLID WHITE LINE. SPACE ADDITIONAL ARROWS EVENLY UP TO 80' (24.4 m) MAXIMUM SPACING. USE MINIMUM OF 2 ARROWS.

NOT TO SCALE

Note: All dimensions are in INCHES (millimeters) unless otherwise shown.

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ci:\pw\work\p\idot\steffenmk\d0340638\074618-sh1-details.dgn		DRAWN -	REVISED -
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**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

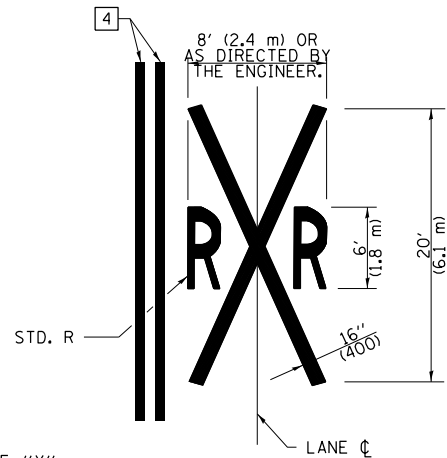
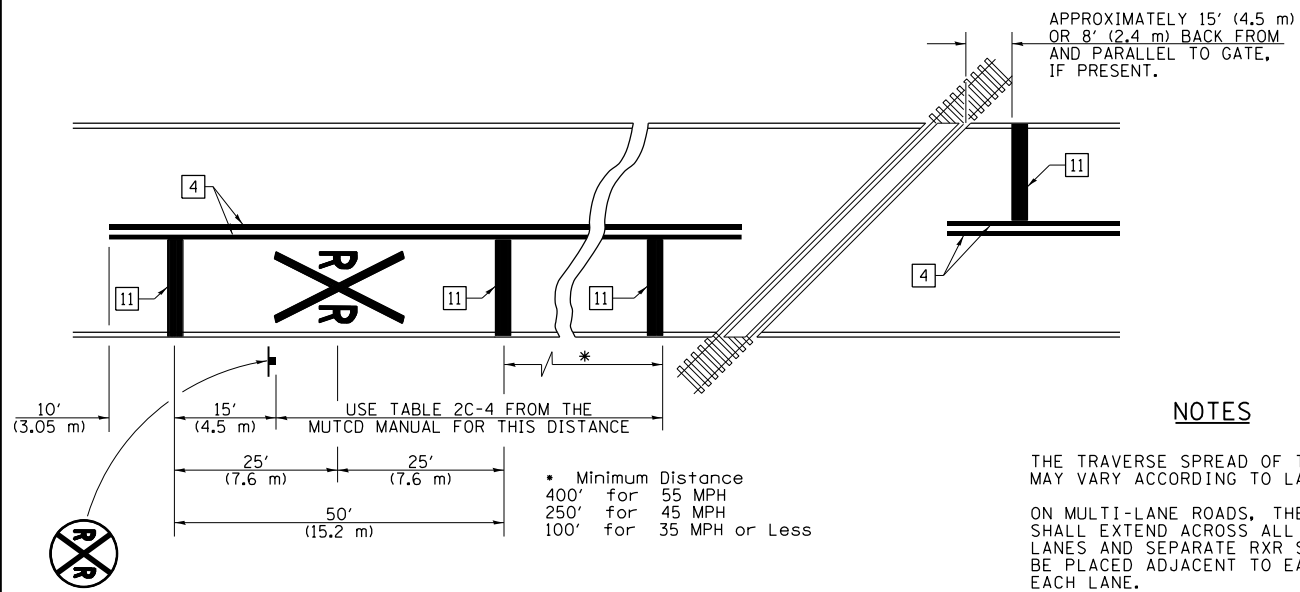
**PAVEMENT MARKING AND RAISED REFLECTIVE PAVEMENT MARKERS
(RURAL & URBAN APPLICATIONS)**

SCALE: SHEET NO. 3 OF 4 SHEETS STA. TO STA.

DISTRICT 7 DETAIL NO. 7800001

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
823	07 BRIDGE REPAIRS 2014-3	WAYNE	60	59
CONTRACT NO. 74618				
ILLINOIS FED. AID PROJECT				

PAVEMENT MARKINGS AT RAILROAD-HIGHWAY GRADE CROSSING



NOTES

THE TRAVERSE SPREAD OF THE "X" MAY VARY ACCORDING TO LANE WIDTH.

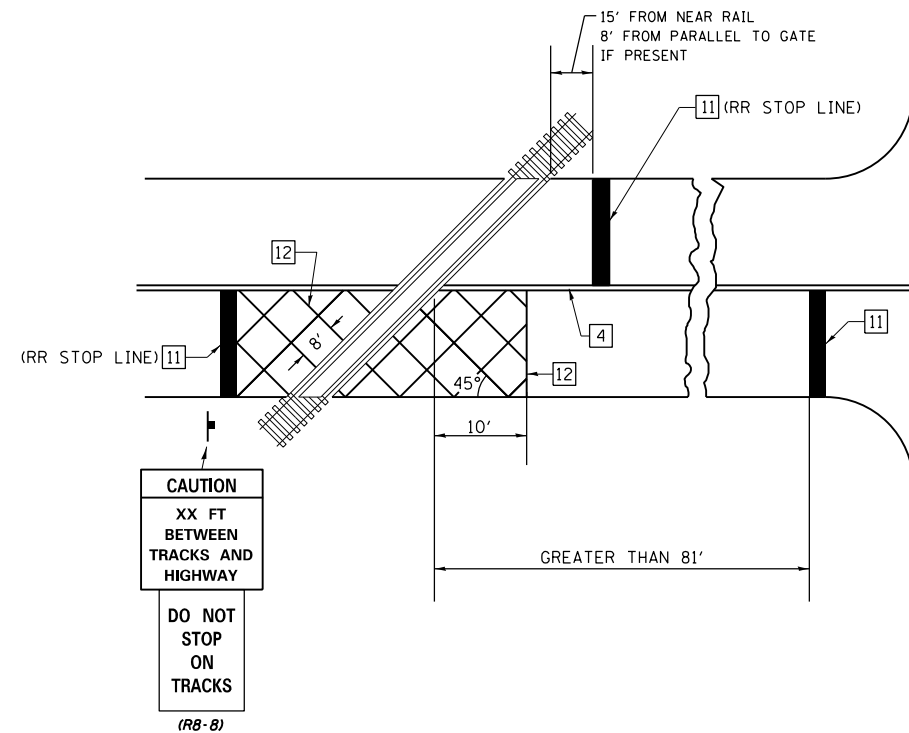
ON MULTI-LANE ROADS, THE STOP LINES SHALL EXTEND ACROSS ALL APPROACH LANES AND SEPARATE RXR SYMBOLS SHALL BE PLACED ADJACENT TO EACH OTHER IN EACH LANE.

WHEN THE PAVEMENT MARKING SYMBOL IS USED, A PORTION OF THE SYMBOL SHOULD BE LOCATED DIRECTLY ADJACENT TO THE ADVANCE WARNING SIGN (W10-1) AS PLACED BY TABLE II-1, CONDITION B OF THE MUTCD.

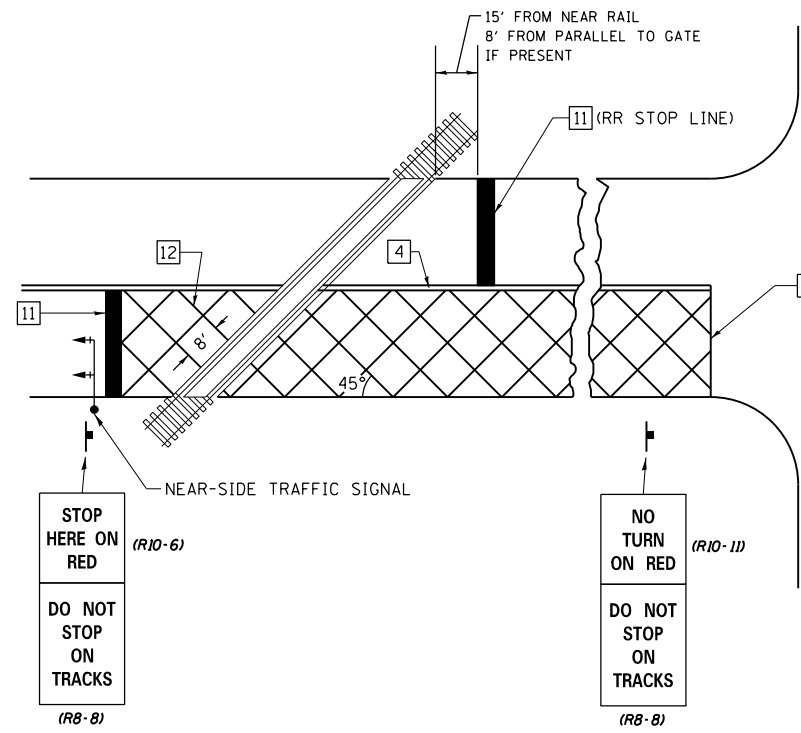
PAVEMENT MARKING LEGEND

- 1 4" (100) SKIP-DASH (YELLOW)
- 2 4" (100) SOLID (YELLOW)
- 3 12" (300) DIAGONAL (YELLOW)
- 4 4" (100) DOUBLE YELLOW (NARROW)
- 5 12" (300) SOLID WHITE
- 6 RESERVED
- 7 6" (150) SKIP-DASH (WHITE)
- 8 4" (100) SOLID (WHITE)
- 9 12" (300) DIAGONAL (WHITE)
- 10 6" (150) SOLID (WHITE)
- 11 24" (600) STOP BAR (WHITE)
- 12 8" (200) SOLID (WHITE)
- 13 4" (100) PARKING WHITE

RAILROAD CROSSING WITH INTERCONNECT ONLY



RAILROAD CROSSING WITH INTERCONNECT AND PRE-SIGNALS



SUPPLEMENTAL PAVEMENT MARKING TREATMENT FOR RAILROAD-HIGHWAY GRADE CROSSING

GENERAL NOTES

- SUPPLEMENTAL PAVEMENT MARKINGS TO BE INSTALLED ONLY ON APPROACHES TO INTERSECTIONS CONTROLLED BY TRAFFIC SIGNALS WHICH ARE INTERCONNECTED WITH THE RAILROAD WARNING SIGNALS.
- EXTEND PAVEMENT MARKINGS TO THE INTERSECTION ONLY WHERE NEAR-SIDE TRAFFIC SIGNALS ARE USED.

NOT TO SCALE

Note: All dimensions are in INCHES (millimeters) unless otherwise shown.

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PAVEMENT MARKING AND RAISED REFLECTIVE PAVEMENT MARKERS
(RURAL & URBAN APPLICATIONS)

SCALE: SHEET NO. 4 OF 4 SHEETS STA. TO STA.

DISTRICT 7 DETAIL NO. 7800001				
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
823	D7 BRIDGE REPAIRS 2014-3	WAYNE	60	60
CONTRACT NO. 74618				
ILLINOIS FED. AID PROJECT				